

**State University of Trade and Economics
Department of International Management**

GRADUATION QUALIFICATION WORK
on the topic:

**ORGANIZATION OF THE IMPORT OF ELECTROTECHNICAL
EQUIPMENT AND MEANS OF INDUSTRIAL AUTOMATION FROM
THE COUNTRIES OF THE EUROPEAN UNION**
(according to the materials of «ABR Electric» LLC, Kyiv)

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Task for a final qualifying paper

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1. Topic of a final qualifying paper:
« Organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union (according to the materials of «ABR Electric» LLC, Kyiv) »
2. Approved by order of STEU from «12» January 2023 № 38
3. Deadline for the submission of completed final qualifying paper by the student is «22» May 2023
4. Initial data of the final qualifying paper:

The purpose of the final qualifying paper is to investigate the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

The object of the final qualifying paper is the process of organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

The subject of the final qualifying paper is practical aspects of import equipment and means of industrial automation from the countries of the European Union.

5. Contents of the final qualifying paper (list of questions for each chapter):

Introduction

Chapter 1. Research of the foreign economic activity of LLC «ABR Electric»

Characteristics of the enterprise. Analysis of production and economic (trade) activities. Study of the financial condition and total income of the entity in recent years. The purpose of the import operation. Research of foreign economic activity of the enterprise with definition of geographical structure of import operations, commodity structure of imported goods. Identification of current problems of the enterprise-subject of foreign economic activity.

Chapter 2. Justification of the choice of the country counterparty for the organization of imports of electrotechnical equipment and means of industrial automation

Study of the main stages of development and the current state of the world market of electrotechnical equipment and means of industrial automation. Study of world market of electrotechnical equipment and means of industrial automation in recent years. Identifying the leading countries in the world market of electrotechnical equipment and means of industrial automation. Analysis of the dynamics of value and quantity of imports. Price level research.

Identification of local importers (competitors). Study of demand for the researched product in the domestic market, analysis of consumer behavior, determination of the target audience of the consumer.

Chapter 3. Implementation of import operation

Compliance with regulatory requirements of Ukraine. Availability of logistics. Search for potential partners. Detailing the content of the Contract. Definition of exogenous, endogenous risks, contractual risks.

Conclusion

References

6. Calendar plan of the final qualifying paper:

№	Stages of the final qualifying paper	Terms of the final qualifying paper	
		plan	fact
1	Approval of the content of the final paper	11/02/2023	11/02/2023
2	Collection of information	27/02/2023	27/02/2023
3	Writing and submitting for review the first chapter of the final paper	15/04/2023	15/04/2023
4	Writing and submitting for review the second chapter of the final paper	1/05/2023	1/05/2023
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8. Scientific adviser of the final qualifying paper Demkiv Y.M.

9. Guarantor of the educational program Pyankova O.V.

10. The task was accepted by the student Kalenychenko A.O.

11. Resume of scientific adviser about the final qualifying paper:

The study is devoted to an extremely relevant topic today and considers the organizational and practical aspects of the organization of the import supply of electrical equipment. The author conducted a rather in-depth study of both foreign economic and technical activities of the analyzed enterprise with emphasis on the specifics of the international direction. The analysis of the world and Ukrainian markets of electrotechnical equipment and means of

industrial automation and the detailing of modern management add validity to the research. The calculation of the effectiveness of the proposed import operation and the region of coverage forms a complex image regarding the objectivity of the coverage and prospects for the development of the enterprise "ABR Electric" LLC.

The task of research in the work has been completed.

It is possible to recommend for defense a final qualification work on the topic "Organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union (according to the materials of "ABR Electric" LLC, Kyiv)"

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A final qualifying paper of the student

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The final qualifying paper of student Ilnytskyi Denys Serhiyovych may be admitted to the defense in the Examination Board.

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« » 2023

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Abstract

Kalenychenko Anastasiia Oleksandrivna Organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union (according to the materials of «ABR Electric» LLC, Kyiv). Manuscript.

Graduate qualification work in the specialty "Management", educational program "Management of foreign economic activity". State University of Trade and Economics, Kyiv, 2023.

The study provides a comprehensive description of the activities of "ABR Electric" LLC, and analyzes the organization of import activities in Diamic. The global trends in the development of the electrotechnical equipment and industrial automation market have been studied. Internal features of the development and structure of the Ukrainian electrical industry market are analyzed.

The work details the organization of imports from EU countries by ABR Electric LLC. A forecast estimate of the import of electrotechnical equipment and means of industrial automation of "ABR Electric" LLC is given based on a specific transaction.

Keywords: import, export, foreign economic activity, electrical equipment, industrial automation.

Анотація

Калениченко Анастасія Олександрівна **Організація імпорту електротехнічного обладнання та засобів промислової автоматизації з країн Європейського Союзу (за матеріалами ТОВ «АБР Електрик», м. Київ).**
Рукопис.

Випускна кваліфікаційна робота за спеціальністю «Менеджмент», освітня програма «Менеджмент зовнішньоекономічної діяльності».
Державний торговельно-економічний університет, Київ, 2023.

В дослідженні наведено комплексну характеристику діяльності ТОВ «АБР Електрик», проаналізовано організацію імпортової діяльності в діаміці. Досліджено світові тенденції розвитку ринку електротехнічного обладнання та промислової автоматизації. Проаналізовано внутрішні особливості розвитку та структуру українського електро-промислового ринку.

В роботі деталізовано організацію імпорту з країн ЄС компанії ТОВ «АБР Електрик». Дано прогнозну оцінку імпорту електротехнічного обладнання та засобів промислової автоматизації ТОВ «АБР Електрик» на базі конкретної операції.

Ключові слова: імпорт, експорт, зовнішньоекономічна діяльність, електрообладнання, промислова автоматизація.

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INTRODUCTION

Relevance of research. The current state and peculiarities of the development of the world economy affect the strategies of enterprises and the thinking of managers. Innovative orientation is currently becoming a priority vector for the development of the state's economy, which is reflected both in scientific research and in the practical activities of business entities. A special role is assigned to industry, in particular to large industrial associations, which for many decades formed the basis of the economy, the basis of its scientific and technical development. In our opinion, the electrical engineering industry also belongs to such industries. The basis for solving the existing problems of the electrical engineering industry is rapid innovative development, which requires significant investments in the development and implementation of new technologies, retooling of production and optimization of business processes. The emergence of new enterprises that actively use modern technological solutions that have a clear development strategy allows us to hope that Ukraine will take a worthy place among the countries with the most developed mechanical engineering in the foreseeable future.

The market of electrical products largely depends on the economic situation of the country and key industries: the oil and gas sector, energy, housing and communal services, agro-industrial complex and others. Since the current economic crisis has affected most of them to one degree or another, the reduction in the consumption of electrical products is unlikely to be avoided. Therefore, research and analysis of the dynamic characteristics of the electrical products market is important and relevant.

Such scientists as V.M. Kobelev, T.O. Kobeleva, V.G. Semenova, N.M. Kureda, V.V. Komissarova, N.O. Protsenko, K.A. Velikikh, A.P. Kosenko, A.K. Pletnikov, M. Lesnikova and others.

The electrical engineering industry plays an important role in the development of the economy of any country, because this branch of production

is, first of all, the material and technical base of the country's electrification, playing the most important role in its technical progress. The electrical industry is a branch of industry that produces electrical products for the production, transmission and consumption of electrical energy, is one of the most developed industrial branches in Ukraine and is the basis of the scientific and technical development of the country's economy, an important component of technology in all branches of production, a prerequisite for the growth of production volumes in the branches of the national economy and increasing the competitiveness of products both on the domestic and international markets, which justifies the relevance of this study.

The goal is to investigate the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

Task:

- consider the general characteristics of the activity of the company "ABR Electric" LLC;
- lead the import organization of "ABR Electric" LLC;
- determine global trends in the development of the electrical equipment and industrial automation market;
- to reveal the internal features of the development of the Ukrainian market;
- to investigate the organization of imports from the European Union by ABR Electric LLC;
- provide a forecast assessment of the import of electrotechnical equipment and means of industrial automation of the company "ABR Electric" LLC.

The object of research: the process of organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

The subject of research: practical aspects of import equipment and means of industrial automation from the countries of the European Union.

The following **methods** were used in the work:

logical - to study the evolutionary path of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union;

systemic - to highlight the main issues of the studied issues;

comparative analysis - for systematization, classification of factors that affect the peculiarities of the organization of the import of electrotechnical equipment and means of industrial automation;

statistical analysis - to assess the state of the system of analysis of recommendations regarding the organization of import of electrotechnical equipment and means of industrial automation from the countries of the European Union. Regarding research methodology, the following methods can also be distinguished: analytical method, systemic analytical method, hermeneutic, behaviorist method.

The analytical method can be found when studying the real situation of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union, which is possible when studying the company's practice. After analyzing the practice, it is possible to draw conclusions about certain trends in the import of electrotechnical equipment and industrial automation tools from the countries of the European Union.

The method of system analysis will come in handy when studying the provisions of normative legal acts regulating the analyzed sphere.

Hermeneutics will help us understand the basic concepts, which include the understanding of concepts.

Practical significance: the obtained results can be used by teachers, economists, managers, students and in the work to study the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union. The main conclusions and practical recommendations of the work can be applied in practice to study the

peculiarities of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

Information support:

domestic and foreign publications on the study of the peculiarities of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union (V.M. Kobelev, T.O. Kobeleva, V.G. Semenova, N.M. Kureda, V.V. Komissarova, N.O. Protsenko, K.A. Velikikh, A.P. Kosenko, A.K. Pletnikov, M. Lesnikova);

periodical print materials - articles, mass media for the study of trends in the development of the organization of the import of electrotechnical equipment and means of industrial automation;

Internet sources - books on the interpretation of the peculiarities of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

The structure of the work: the work consists of an introduction, three sections, conclusions, and a list of used sources.

CHAPTER 1. ANALYSIS OF THE ORGANIZATION OF THE IMPORT OF ELECTRICAL EQUIPMENT AND INDUSTRIAL AUTOMATION TOOLS FROM THE COUNTRIES OF THE EUROPEAN UNION

1.1. General characteristics of the activity of the company "ABR Electric" LLC

Organization LLC "ABR ELECTRIC" was registered on 09.01.2018 at the legal address Ukraine, city of Kiev, st. Sadova. The head of the organization is Borbat Volodymyr Oleksandrovich. Rozmir of the statutory capital of the warehouse UAH 2,245,000.00 At the time of the last update of the data on March 21, 2023, the organization is not in the process of admission [29].

For data from the tax registries of Ukraine, the organization LLC "ABR ELECTRIC", Transferred to the form in the authorities of income and collections, is recorded according to the register "Find out more about your business partner" as of 09.06.2022 MPE and Daily registration in the Register of non-revenue established organizations.

On the main page of the ABR Electric website (<https://abr-electric.com.ua/>), which supplies Ukraine and other countries with a wide range of electrical equipment and industrial automation equipment. The main purpose of the site is to help specialists in the field of electrical equipment - both operators and suppliers - form a general picture of the Ukrainian electrical equipment market, select the right products from a huge list of analogues and rationally organize the packaging, design or repair work [29].

The site contains catalogs of manufacturers of electrical equipment, the distributor of which is the company "ABR Electric". These foreign manufacturers, according to the website editors, are the most popular among Ukrainian consumers of electrical products. The description of the companies is placed in the form of articles, which indicate the areas of activity and the main equipment produced, as well as some features of the organization of the enterprise.

Of course, each catalog is far from complete and will be constantly updated. So far, we have included in the menu the top ten manufacturers whose products are in demand in Ukraine.

For the convenience of the user, you can select the necessary equipment using the generalized introductory catalog of electrical equipment and automation equipment - products manufactured by various domestic and foreign enterprises. After selecting the appropriate section, find the product you need and in the article about it, find the list of manufacturers. It has everything that an industrial enterprise or construction organization needs: electrical installation products (switches, sockets, shields and cabinets, etc.), electrical distribution equipment, drive technology, instrumentation, sensor technology and machine vision systems, hydraulic and pneumatic automation systems [3].

A list of the main product range of ABR Electric LLC:

- Electrical installation products (switches, sockets)
- Automatic switches
- Panel equipment
- Cable and conductor products
- Cable systems
- Lighting equipment
- Frequency converters
- Electric motors
- Sensor technology (sensors, encoders, strain gauges, thermocouples, etc.)
- Relays and timers

Popular categories:

- Low-voltage electrical equipment
- High-voltage electrical equipment
- control and measuring devices and automation
- Panel equipment
- Automation of buildings
- Lighting products

- Means of industrial automation
- Drive technology
- Electrical installation products
- Pneumatic automation

Popular brands that ABR Electric LLC has been cooperating with since the beginning:

- Schneider Electric
- ABB
- Eaton (Moeller)
- Siemens
- IEC
- ASKO-UKREM
- Legrand
- TO BE SICK
- Seeker
- Baluf
- Norgren
- Festo
- SEW-Eurodrive

Advanced technologies are present in the new technologies and innovations of ABR Electric LLC. For example, the new power supply unit of the MEAN WELL HEP-1000-W series with protected wiring. In order to create a complete power source capable of working in an aggressive environment, MEAN WELL released a new series of converters HEP-1000-W. The difference between this series and the previous HEP-1000 series products is that the input and output use IP67 waterproof wires. The specifications allow this power supply to be used in outdoor equipment or in environments with high humidity and dust, such as 4G/5G communication equipment, laser and charging systems [1].

Let's consider the main components of the business system of LLC "ABR Electric". As you can see, management is carried out with the aim of

determining future results and achieving the tasks set before the enterprise, taking into account all trends and factors affecting the effectiveness of results. With the help of planning, the top management has the means of strategic planning of the organization of economic activity. Note that the planning subsystem is the basis for making a significant number of economic decisions in the economic activity of the enterprise [24, p. 29].

Since planning processes help in formulating set goals, its main purpose is to create a single common goal within the enterprise. Management activity in the implementation of strategic planning of the economic activity of the LLC involves the following actions:

- distribution of all resources of the enterprise for the purpose of their effective use;
- processes of adaptation of the enterprise to the changing external environment, the factors of which have a significant impact on it;
- internal coordination of enterprise management processes;
- strategic forecast of the economic efficiency of the enterprise.

The processes of forming tasks, goals and missions are aimed at developing the necessary areas of activity of the enterprise under study [2, c. 9].

Therefore, each direction of the operational activity of LLC "ABR Electric" is carried out by the corresponding division, and this organizational structure ensures the performance of all types of work and operations at the enterprise in accordance with the planned indicators.

Let's consider them in more detail We will analyze the dynamics of the company's assets and liabilities and investigate the sources of their formation (Table 1.1, 1.2.).

Table 1.1.

**Analysis of LLC "ABR Electric" assets in 2018-2020,
thousand UAH**

Indexes	31.12.2018	31.12.2019	31.12.2020	Absolute		Relative	
				2019/ 2018	2020/ 2019	2019/ 2018	2020/ 2019
1	2	3	4	5	6	7	8
ASSETS	11817	20092	18604	8275	-1488	70,0	-7,4
1. Non-current assets	5057	9935	11245	4878	1310	96,5	13,2
Intangible assets	0	0	359	0	359	0	100,0
Unfinished capital investments	327	2159	3402	1832	1243	560,2	57,6
Fixed assets	4509	7646	7386	3137	-260	69,6	-3,4
Long-term receivables	221	130	98	-91	-32	-41,2	-24,6
2. Current assets	6760	10157	7359	3397	-2798	50,3	-27,5
Reserves	3804	7641	5617	3837	-2024	100,9	-26,5
Current biological assets	0	25	0	25	-25	100,0	-100,0
Accounts receivable for products, goods, works, services	805	1770	1375	965	-395	119,9	-22,3
Accounts receivable for settlements with the budget	0	134	0	134	-134	100,0	-100,0
Other current receivables	1465	152	149	-1313	-3	-89,6	-2,0
Money and its equivalents	172	14	8	-158	-6	-91,9	-42,9

Source: created by the author based on [40].

According to the data, the value of the company's assets increased in 2019, and decreased in 2020. The increase in the value of assets in 2019 led to an increase in the value of non-current assets (capital investments in progress and fixed assets), as well as current assets (inventories, current biological assets, receivables for goods, works, services according to calculations with estimates and costs of future periods).

The decrease in the value of assets in 2020 is caused by a decrease in the value of fixed assets and long-term receivables, as well as the amount of current assets (all their components).

The structure of assets is characterized by the predominance of the share of non-current assets of the enterprise (in 2020) and current assets (in 2018-2019), as evidenced by the figures. 1.1.

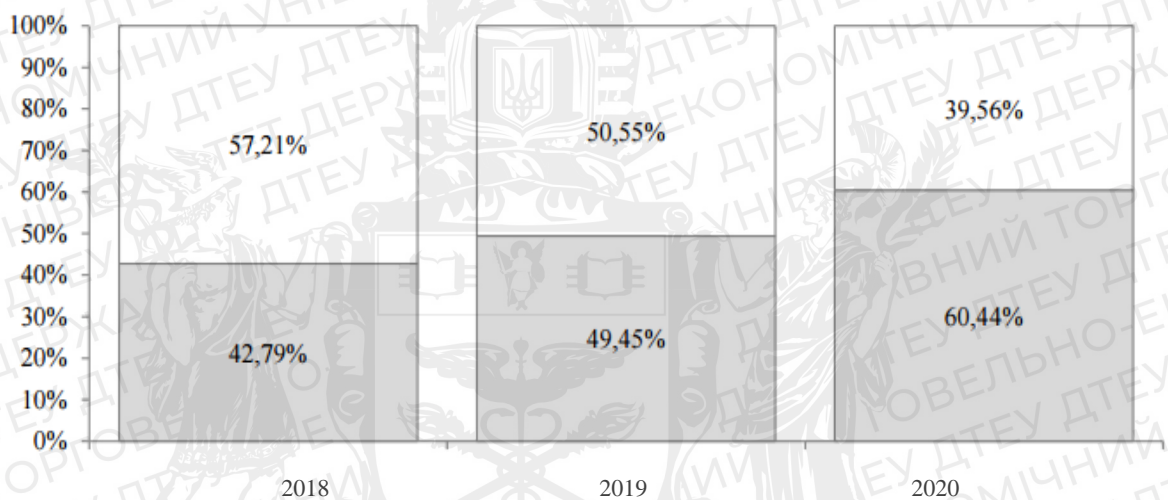


Fig. 1.1. Structure of LLC "ABR Electric" assets in 2018-2020, %

Source: created by the author based on [1].

The structure of assets in the coming years, including in 2022, includes the following strategic directions.

Next, we will analyze the dynamics of the company's liabilities and investigate the sources of their formation (Table 1.2.).

The increase in the value of the company's liabilities in 2019 was due to the growth of equity capital, as well as the size of the company's current liabilities and collateral. The decrease in liabilities in 2020 is associated with a decrease in the value of all their components.

Table 1.2.

**Analysis of the liabilities of the LLC "ABR Electric"
in 2018-2020, thousand UAH.**

Indicators	31.12.2018	31.12.2019	31.12.2020	Absolute increase, %		Relative increase, %	
				2019/ 2018	2020/ 2019	2019/ 2018	2020/ 2019
1	2	3	4	5	6	7	8
PASSIVES	11817	20092	18604	8275	-1488	70,0	-7,4
1. Own capital	3648	3728	3773	80	45	2,2	1,2
Registered (share) capital	1093	1093	1093	0	0	0,0	0,0
Additional capital	2555	2635	2680	80	45	3,1	1,7
2. Long-term obligations and security	57	57	0	0	-57	0,0	-100,0
Other long-term liabilities	57	57	0	0	-57	0,0	-100,0
3. Current liabilities and security	8112	16307	14831	8195	-1476	101,0	-9,1
Current payables:							
for products, goods, works, services	1392	3897	3490	2505	-407	180,0	-10,4
according to calculations with the budget	522	1188	5483	666	4295	127,6	361,5
according to insurance calculations	274	366	354	92	-12	33,6	-3,3
according to salary calculations	837	1147	1433	310	286	37,0	24,9
Current provisions	0	2	1	2	-1	100,0	-50,0
Other current commitments	5087	9707	4070	4620	-5637	90,8	-58,1

Source: Calculated by the author based on company data [40].

The structure of the company's liabilities was characterized by the largest share of current liabilities and provisions, as shown in fig. 1.2.

Thus, the material, technical and technological support of the company's activity is satisfactory and sufficient for the effective conduct of economic activity, which is especially important for the support of the base in this industry. The turnover ratio of the company's fixed assets decreased in 2019, because the efficiency of the company's use of existing fixed assets decreased.

Also, in 2019-2020, the turnover ratio of the company's equity capital increased, so it can be concluded that the company's equity capital is used effectively.

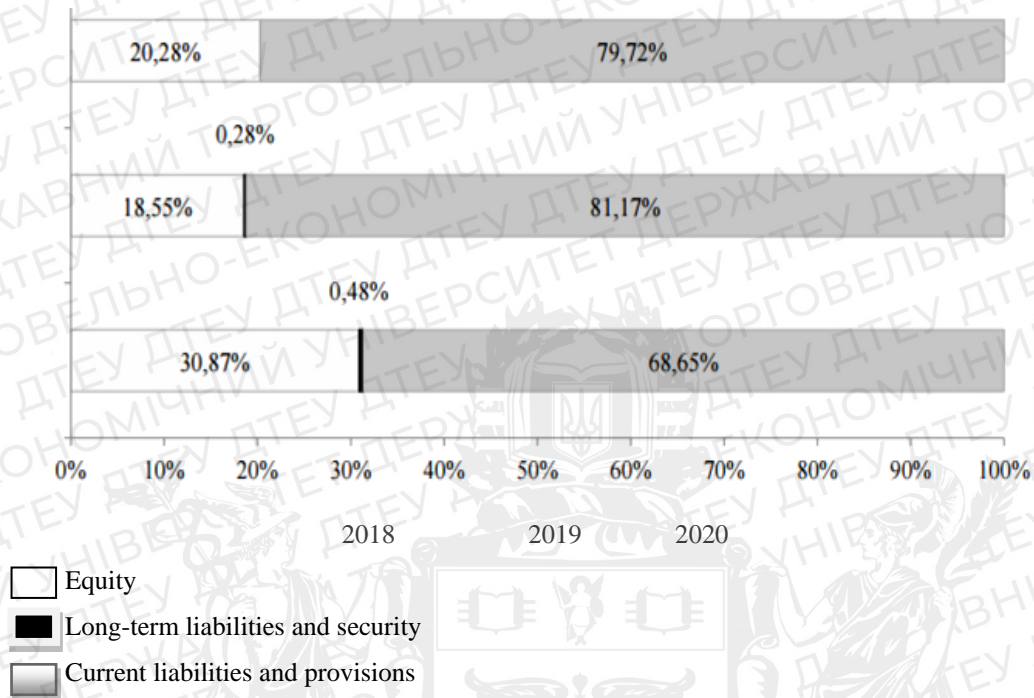


Fig. 1.2. Structure of liabilities of LLC "ABR Electric" in 2018-2020, %

Source: Built by the author based on company data[1].

In general, it is worth noting that the economic activity of the enterprise is efficient, since it received a net profit that is growing (Fig. 1.3).



Fig. 1.3. Dynamics of the financial results of the economic activity of the LLC in 2018-2020.

Source: Built by the author based on company data[1].

A positive aspect of the enterprise's activity is that the decrease in the rate of growth of the enterprise's costs for production and sale of products leads to an increase in the profitability of the enterprise and its products (Table 1.3.).

Table 1.3.

Dynamics of financial indicators of ABR Electric LLC

Indicators	2018	2019	2020	Absolute growth	
				2019/2018	2020/2019
Profitability of liabilities	0,81	0,79	0,80	-0,02	0,01
Profitability of assets	1,04	1,03	1,04	-0,02	0,01
Product profitability	1,03	0,75	0,95	-0,28	0,2
Profitability of activity	0,83	0,59	0,76	-0,24	0,17

Source: created by the author based on [40].

Therefore, the dynamics of the profitability of products and the company's activity depends on the rates of change in costs for production and sale of products.

Summing up, it is important that the profitability of the company's fixed assets decreased in 2019, because the efficiency of the company's use of existing fixed assets decreased. Also, in 2019-2020, the turnover of the company's own capital increased, so we can conclude about the effective use of the company's own capital.

1.2. Import organization of ABR Electric LLC

The foreign economic activity of "ABR Electric" LLC is an important component of the enterprise's economic activity, which is focused on the import of electrical equipment and industrial automation products.

The enterprise maximally realizes the possibilities of foreign economic advantages regarding the possibility of obtaining economic benefits based on the advantages of international division of labor, international business relations, exchange of innovations and technologies, which is especially important for enterprises of the researched area. . This is explained by the fact that the production of a certain product, its purchase or provision of a certain type of

service in another country has more advantages than such activities within the country [4]. Thus, the foreign trade of ABR Electric LLC is carried out in that country and with those partners that are the most profitable.

We consider foreign economic activity not only as an integral part of the enterprise's economic activity, but also as a rather important factor of intensive development and creation of favorable conditions for economic growth, which makes it possible to strengthen integration processes with other developed countries.

The category of industrial automation imported by "ABR Electric" LLC includes measuring devices and industrial automation devices designed to perceive, transform and use information for control, regulation and control identified in the enterprise by article numbers.

Means of industrial automation:

- Technical and information means of measurement and regulation
- Functional and logical electronic devices
- Secondary devices and indicators
- Regulators, including setpoints
- Executive mechanisms, incl. relay-contact devices
- Power supplies
- The main areas of industrial automation
- Control and regulation of heat, electric power and mechanical quantities
- Control and regulation of the chemical composition and physical properties of gases, liquids and solids

Electrical products popular for import in Ukraine include various electrical appliances, among which sockets, switches, switches, cartridges, connectors, motion sensors, dimmers (dimmers) and other devices should be highlighted. Electrical installation products may differ in purpose, appearance, manufacturer, materials, power, cost and other characteristics, but all these products must meet a number of requirements, the main ones being strength, reliability, functionality and harmony with the interior design of the room [7].

When analyzing the import of "ABR Electric" LLC, we pay attention to the country of manufacture, since in different countries there are different standards for such products, which means that some parts and mechanisms may not match in size and shape, which creates difficulties during installation. There are American, European and Asian standards for electrical products. If earlier domestic houses and apartments were equipped mainly with products of the German standard, today Euro-sockets and Euro-switches are increasingly used [11, p. 29].

Undoubtedly, the efficiency of the economic activity and development of the importer company "AVR Electric" LLC significantly depends on the general state of the external market situation, innovative development of the country, scientific and technical potential, financial stability, the availability of investment and innovation infrastructure and the level of state support. The main risks on the way to the development of entrepreneurial activity are: an unstable economic situation in the country, rising prices for materials and energy sources, a decrease in sales volumes due to a decrease in the purchasing power of the population, a high degree of dependence on legislative and economic restrictions, especially in conditions of a pandemic.

We will analyze the international activities of AVR Electric LLC (Table 1.4.)

Table 1.4.

Areas of foreign economic activity of AVR Electric LLC

Code	Main activity:
46.69	Wholesale trade of other machines and equipment
Additional types of activities	
46.49	Wholesale trade in other household goods
46.51	Wholesale trade of computers, peripheral equipment and software
46.52	Wholesale of electronic and telecommunication equipment, parts thereof
46.62	Wholesale trade of machines
46.90	Non-specialized wholesale trade
47.19	Other types of retail trade in non-specialized stores

Source: created by the author based on [40].

"ABR Electric" company is a reliable and stable supplier of electrical equipment and industrial automation tools. Thanks to established relations with many well-known manufacturers of electrical equipment, both in Ukraine and abroad, the company has proven itself as a reliable partner for many industrial enterprises. Extensive experience in the foreign economic market and a responsible attitude towards customers are competitive advantages that allow ABR Electric to occupy a leading position on the territory of Ukraine [9].

The principle of ABR Electric: always in touch, always the best offers.

The company's website contains catalogs of electrical equipment manufacturers, whose distributor is ABR Electric. These foreign manufacturers are the most popular among Ukrainian consumers of electrical products. The description of the company is placed in the form of articles that indicate the areas of activity and the main equipment produced, as well as some special features of the company's organization.

We will list popular products for the company's foreign economic relations (Table 1.5.)

Table 1.5.

**List of main products for foreign economic relations of the company
AVR Electric LLC**

Popular equipment	Popular categories	Popular brands
<ul style="list-style-type: none"> • Wiring accessories (switches, sockets) • Circuit breakers • Switchboard equipment • Cable and wiring products • Cable support systems • Lighting equipment • Frequency converters • Electric motors • Sensor technology (sensors, encoders, strain gauges, thermocouples, etc.) • Relays and timers 	<ul style="list-style-type: none"> • Low voltage electrical equipment • High voltage electrical equipment • Instrumentation and automation • Switchboard equipment • Building automation • Lighting products • Industrial Automation Tools • Drive technology • Wiring products • Pneumoautomatics 	<ul style="list-style-type: none"> • Schneider Electric • ABB • Eaton (Moeller) • Siemens • IEC • ASKO-UKREM • Legrand • SICK • Finder • Baluff • Norgren • Festo • SEW-Eurodrive

Source: created by the author based on [40].

As you can see, the range of imported products in the segment of electrical engineering and automation products is quite wide and continues to expand due to innovative and new units (Table 1.6).

Table 1.6.

Novelties of export and imported products

<p>New MEAN WELL HEP-1000-W series power supply with secure wiring In order to create a complete power supply capable of operating in an aggressive environment, MEAN WELL has released a new series of HEP-1000-W converters. The HEP-1000 series has a unique sealed design filled with high quality silicone gel to effectively dissipate heat and prevent failures caused by dust and high humidity. The new PIs will help users reduce overall maintenance costs and ensure stable and reliable equipment operation.</p>
<p>New one-piece kiosk Advantech UTK-615 for self-service systems with advanced features Taiwanese company Advantech has launched a modular self-service kiosk UTK-615, designed for building indoor self-ordering systems. Powered by a Rockchip ARM® Cortex™ -A17 RK3288 processor supporting Android 8.1 OS, this UTK-615 kiosk performs operations in a compact form factor. The system is equipped with a 15.6-inch touch screen, as well as a QR code scanner, an NFC reader, an EMV reader and a receipt printer, which allows you to make payments in various ways that are popular in many countries around the world. UTK-615 terminals are designed for 24/7 operation and meet the various requirements of self-service systems, and can be configured and supplemented with a number of modules that expand the system functions.</p>
<p>Mitsubishi Electric and Tokyo Tech Develop Blockchain Technology to Streamline P2P Electricity Trading Mitsubishi Electric Corporation and Tokyo Institute of Technology (Tokyo Tech) announced the joint development of an original blockchain technology that will optimize peer-to-peer (P2P) electricity trading. This technology is expected to contribute to more efficient use of surplus electricity generated from renewable sources by creating a trading environment that responds flexibly to overall demand, in particular to maximize the amount of surplus electricity available on the market at any given time.</p>
<p>Control valve GEMÜ R563 eSyStep GEMÜ, a manufacturer of high quality valves, measurement and control systems, has launched the new GEMÜ R563 eSyStep motorized control valve. In addition, the GEMÜ 566 is now equipped with a GEMÜ eSyStep actuator. The GEMÜ R563 eSyStep control valve is recommended for use in low flow control systems. With flow rates from 63 l/h to 3300 l/h, individual control parameters can be controlled. Thanks to the use of special plastics and elastomers in the parts in contact with the fluid, the valve can be used in a wide variety of applications, for example, for the supply of water in mixing exact ratios of acid and alkali, in ion exchangers, etc. systems</p>
<p>Panasonic Industry Offers New Type of Graphite Thermal Interface Material (TIM) Heat dissipation is a major concern when operating power modules in complex and even harsh industrial or automotive environments. Heat dissipation from special heatsinks is usually achieved by a special lubricant layer, which, of course, must be replaced from time to time. This is a time-consuming and not always solvable task, but it has been successfully solved with the help of graphite TIM material developed by Panasonic Industry. Now, this well-known manufacturer has launched a highly compressible type EYGR, a new series of micrometer-sized pyrolytic sheets for IGBT power modules, which reduces thermal resistance by filling the gap and unevenness on the surface of both the power module and the heatsink, thus improving heat dissipation performance.</p>

Source: created by the author based on [12].

The main strengths of the enterprise are aimed at organizing effective purchases. The company uses modern technologies and has a special approach

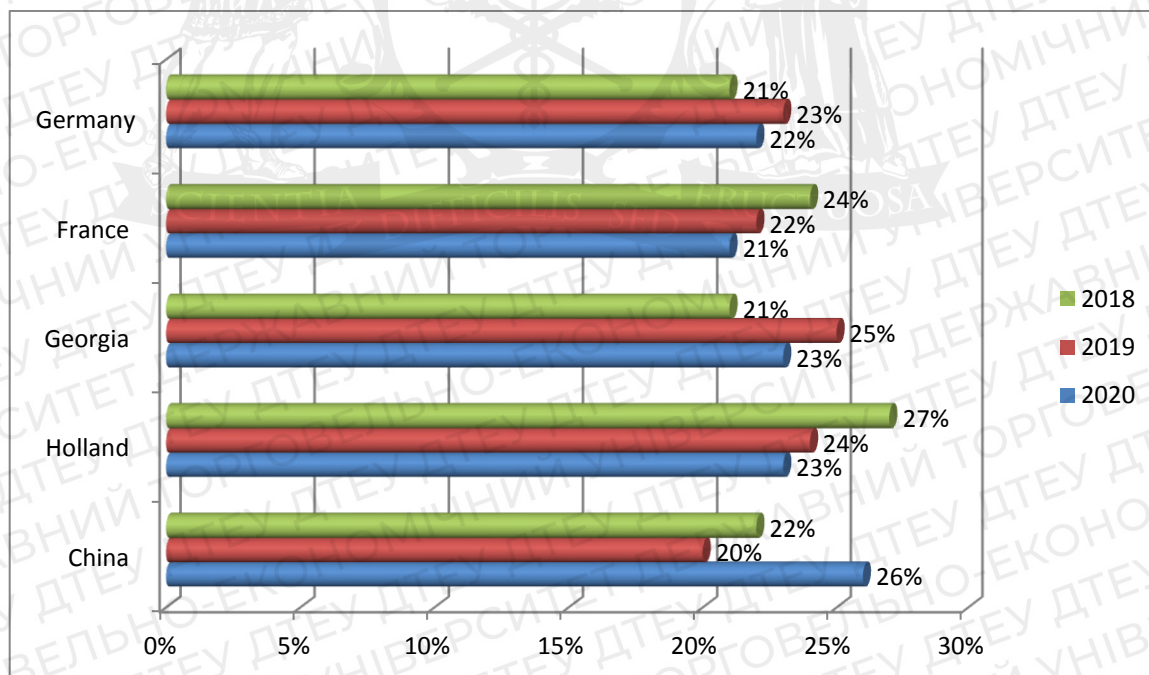
to each of its suppliers. Partners with which the company works: France, Germany, China, Holland, Georgia.

In 2018, the company cooperated with China, where 224,658 units of finished products were exported during the year. In 2019, the number of partners increased and the company signed foreign economic contracts with companies from Holland, Germany, Georgia, and France [1].

In 2020, the volume of imports of finished goods was:

1. China - 9,420 units;
2. Holland – 6,384 units;
3. Georgia – 5,382 units;
4. France – 3,954 units;
5. Germany - 4,619 pcs.

In total, 25,805 units of finished goods were imported in 2020. The percentage of imports of goods to each country for 2020 is shown on Pic. 1.5.



Pic. 1.5. Regional structure of imports of AVR Electric LLC goods in 2018-2020, %

Source: created by the author based on [1].

According to this fig. it is clear that these countries are the main partner countries. This is due to the fact that the company has not been working with

representatives of these countries for the first year. According to this fig. it is clear that these countries are the main partner countries. This is due to the fact that the company has not been working with representatives of these countries for the first year. It is important to note that the company is currently expanding its geographical capabilities and entering new markets for importing products: Slovakia is one of such new, strategic partners. In 2022, the company "ABR Electric" LLC doubled the volume of contracts with the country.

Prospects for the effective development of an electrical engineering enterprise should be aimed at further expanding and updating the range of products, improving its quality, developing new markets for the purchase and sale of products both in Ukraine and abroad, increasing its competitiveness and energy efficiency, strengthening advertising. measures [42, p. 29]. In connection with the significant increase in energy prices, the addition of energy saving and the introduction of alternative sources of heat are particularly relevant.

Crisis situations in business may have a few main ways of turning: either the company has a reason to change the type of activity, or to know creative solutions that allow it to continue functioning in the same format.

Business from the cob of war has been stunned by the impersonal problems that have not been resolved: relocate, spend money, change the market. One of the problems was the inclusion of electricity, the threat of enemy attacks on the energy infrastructure and the need to balance the energy system. Smaller businesses have begun victorious generators, while the situation is worse for larger graves. At the beginning of the day, the order announced the possibility of importing electricity [19]. For which wines, having praised the decree, having created the mind for supplying the citizens with imported electric energy on market minds.

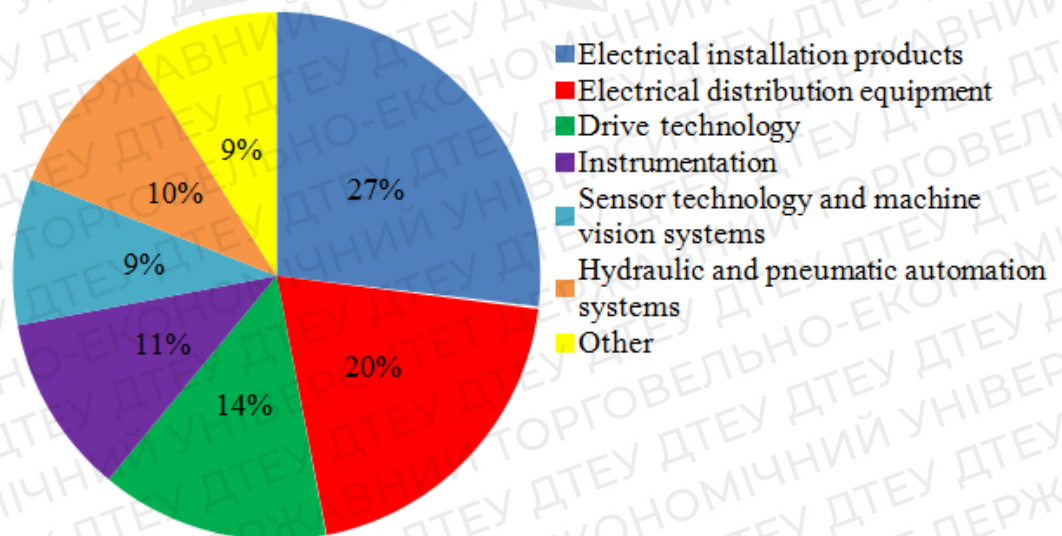
Table 1.7.

Dynamics of commercial products of AVR Electric LLC

Commodity positions	2018, Share, %	2019, Share, %	2020, Share, %	Absolute increase, 2020/2018
Electrical installation products (switches, sockets, shields and cabinets, etc.)	22	20	21	(1)
Electrical distribution equipment	18	22	19	1
Drive technology	13	15	17	4
Instrumentation	9	7	7	(2)
Sensor technology and machine vision systems	17	15	13	(4)
Hydraulic and pneumatic automation systems	12	11	13	1
Other	9	10	9	-
In total	100%	100%	100%	

Source: created by the author based on [40].

Structure of products of AVR Electric LLC, 2021, %



Pic. 1.6. Structure of products of AVR Electric LLC, 2021, %

Source: created by the author based on [40].

On the basis of the presented material, it can be noted that the most important and economically expedient at the current stage of LLC "AVR Electric" are the following measures to improve the management and conduct of foreign economic activities:

- Expansion of the market share of imported electrical industrial equipment and industrial automation tools for further sale in the domestic market of Ukraine.
- Access to international markets. Opening of representative offices in European countries to reduce the cost of transporting goods to Ukraine.
- Attracting a new highly qualified workforce to increase the level of product sales [1].

It should be noted that regardless of the influence of external and internal factors on the general and external economic activity of LLC "AVR Electric", it is increasing the volume of product sales, attracting new suppliers and gaining an image among the leading brands of Ukraine. Performance indicators functionally influence business authority in global communities and increase the value of the company as a whole.

In summary, LLC "AVR Electric" has demonstrated the ability to adapt to market changes and crisis conditions, such as the coronavirus pandemic and war. Despite moderate fluctuations in product sales and other revenues, the company overall experienced significant earnings growth in 2020. Net profit showed positive growth dynamics, increasing by 38.5%.

It is important to add information about the positive dynamics of the company's profitability coefficients throughout the studied period. Such a trend persists even at the present time. In general, AVR Electric LLC holds a strong position in the electrical products market, but does not stop at its segment and expands its scope in strategic and tactical plans. About the prospects and analysis of effective operations of AVR Electric LLC will be presented analysis in the following sections of the study.

CHAPTER 2. JUSTIFICATION OF THE CHOICE OF THE COUNTRY FOR IMPORT

2.1. Global trends in the development of the market for electrical equipment and industrial automation

The electrotechnical industry arose in the 80s of the XIX century. It developed especially rapidly in Germany and the USA, where it was monopolized from the very beginning by the largest industrial associations. The most acute interest in energy-saving engines arose in the late 1970s during the world oil energy crisis. It turned out that saving one ton of conventional fuel is many times cheaper than extracting it, so during the crisis, capital investments in the field of energy saving increased many times. The modern electrotechnical industry unites 20 main interconnected sub-sectors of production: turbo and hydro generators, large electric machines, electric motors, crane electrical equipment, electric locomotives, traction electrical equipment, power rectifiers, transformers, high and low voltage equipment, electrothermal equipment, electric welding equipment, batteries, lighting fittings and electric lamps, X-ray equipment, electrical insulating materials and cable products [10].

According to the "Analysis of the World Market of Electric Motors" prepared by the analytical agency "BusinessStat" in 2019, in 2014-2018, the sale of electric motors in the world grew by 13.9%: from 7.35 to 8.37 billion units. Annual growth of the indicator compared to previous years was observed, the largest increase was noted in 2016 – by 4.3%. The largest consumer of electric motors in the world is China. In 2018, almost 2.6 billion units were sold in the country, which corresponded to 30.5% of the global sales volume. The second place in terms of sales in 2018 was occupied by India with a natural indicator of 790.9 million units., which accounted for 9.4% of total sales. Third place belonged to the USA, where 661.2 million units were sold. electric motors (7.9%).

The world market of electrical equipment is developing very quickly. There are many companies on the market that are engaged in the sale of electrical equipment, among them there are companies that occupy leading positions. Today, the world market of energy-dissolving machines is estimated at 87 billion dollars. per year, based on the structural dynamics of growth, the annual volume may reach 110-115 billion dollars. in the year to 2025. The world market of energy equipment service in 2022 is 31.7 billion dollars.

Value Added in Electrical Equipment market is projected to amount to US\$0.39tn in 2023. An annual growth rate of 2.97% is expected (CAGR 2023-2028) [13].

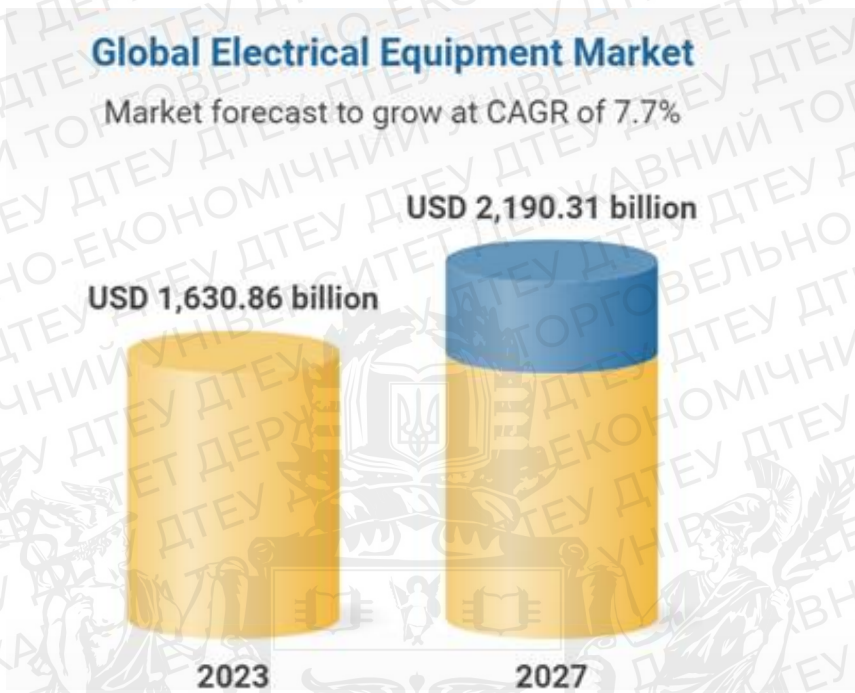
It should be noted that the manufacturing market has faced several challenges in recent years due to geopolitical uncertainty, supply chain disruptions, changing consumer preferences and increased regulatory scrutiny. However, several positive factors such as rising global demand, continued technological progress and increased investment in automation and digitization continue to influence the market and the outlook for manufacturing remains positive.

While the Covid-19 pandemic has caused significant challenges for manufacturers, those who have invested in digitizing and automating their processes will be best positioned for long-term success. Manufacturers that can effectively balance cost pressures and focus on quality are likely to survive the current crisis and ultimately become more resilient.

Factors likely to influence the manufacturing market in 2023 include the adoption of advanced technologies such as artificial intelligence, robotics, and the Internet of Things (IoT), which can improve overall efficiency and productivity while reducing costs [12].

In addition, global analysts believe that sustainable development and environmental awareness will become increasingly important trends, as more and more investors and consumers will prefer companies that prioritize these values and develop environmentally friendly products.

Including factors affecting the market, its changes can be predicted in the following years (Pic.2.1)



Pic. 2.1. The jump in the global electrical equipment market, 2023-2027

Source: created by the author based on [14].

According to data from Volza Global Import, imports of electrical equipment in the world amounted to 2.9 million, imported by 46,619 global importers from 58,676 suppliers.

The world imports most of its electrical equipment from China, Taiwan and Germany

The top three importers of electrical equipment include Mexico with 765,169 shipments, followed by Vietnam with 272,859 and the United States in 3rd place with 84,340 shipments.

The 3 most popular product categories of electrical equipment imports in the world

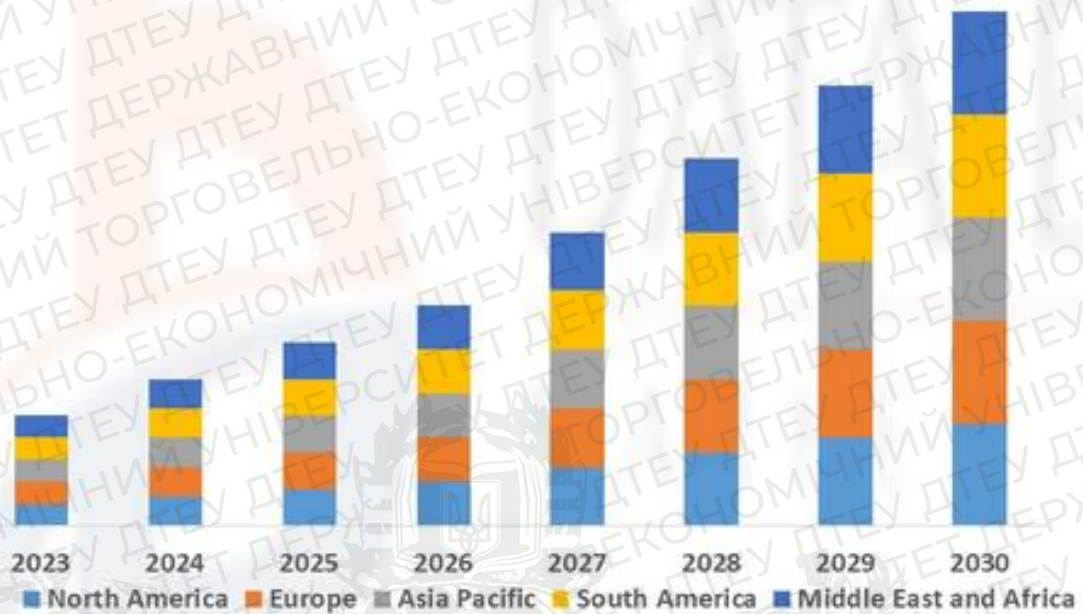
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HSN code 85122099 : 85122099[15].

An extremely interesting expectation in 2023 is the global sales of electric motors, which will amount to almost 10.0 billion units, which will exceed the value of the indicator for 2018 by 19.4%. Electric motors are used everywhere: from household appliances (computers, laptops, refrigerators, vacuum cleaners, etc.) to electric machines in almost all industries (manufacturing, construction, transport, shipbuilding, etc.). Moreover, according to market experts, in Asian countries, about 70% of electric motors are used for irrigation, and the potential of this sector has not been exhausted. The world market is constantly developing, the characteristics of electric motors are being improved. Sales will increase both due to the replacement of failed electric motors and due to the introduction of highly efficient machines, which allow to reduce electricity losses and increase the productivity of equipment [16].

It is important to highlight that the global industrial automation market, by type (Stationary Automation & Programmable Automation), Component (Industrial Robots, Machine Vision, Control Valves, Field Instrumentation, Human-Machine Interface, Industrial PC, Sensors and Industrial 3D Printing), solutions (supervisor and data) Data Acquisition (SCADA), Programmable Logic Controller (PLC), Distributed Control System (DCS), Manufacturing Management System (MES), Product Lifecycle Management (PLM), Functional Safety and Enterprise Asset Management (PAM), automation mode (semi-automatic, fully automatic), end-use industry (oil and gas, chemical industry, pharmaceutical and medical equipment, food and beverage, power and energy, automotive industry, mechanical engineering, water supply and wastewater treatment, electronics and Semiconductors, Metals and Mining, Other) – Industry Trends and Forecast to 2030.



Pic. 2.2. Forecast growth of the global market of electrotechnical equipment and means of industrial automation 2023-2030

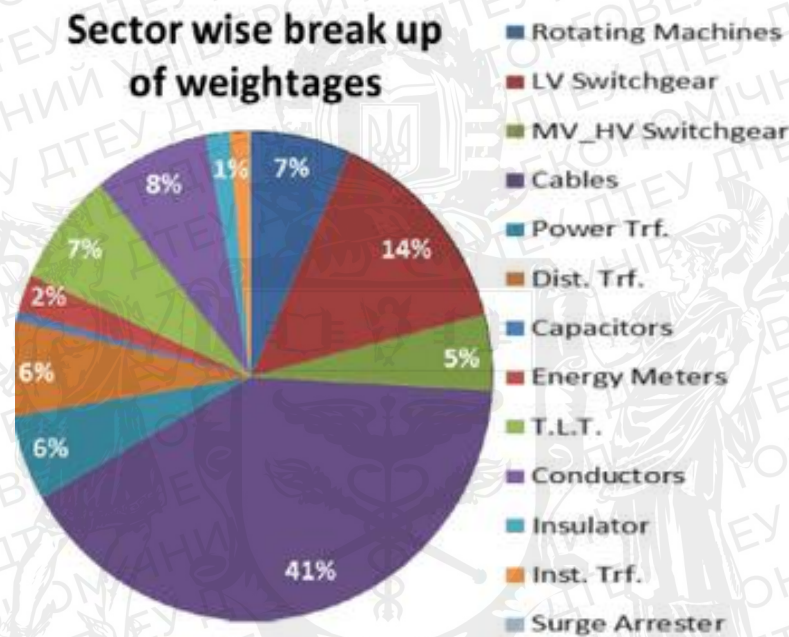
Source: created by the author based on [15].

The industrial automation market is growing rapidly due to the widespread use of automation solutions in the oil and gas, chemicals and materials, manufacturing and pharmaceutical industries. “Distributed Control System (DCS)” is expected to be a growing solution segment due to the high level of adoption of the Industrial Internet of Things (IIOT) for the deployment of automated control systems. This system is also used to control boiler side valves, boiler coal combustion and fans, among other mechanisms of power generation processes.

Data Bridge Market Research analyzes that the industrial automation market was valued at USD 175.76 billion in 2022 and is expected to reach USD 399.24 billion by 2030, registering a CAGR of 10.80% during the forecast period 2023 to 2030 year. In addition to information on market scenarios such as market value, growth rate, segmentation, geographic coverage, and major players, the market reports prepared by Data Bridge Market Research also include in-depth expert analysis, geographically represented company production and capacity,

distribution location diagram players and partners, detailed and up-to-date analysis of price trends and analysis of supply and demand chain shortages.

The general product structure of electrical equipment in the world is represented by many positions that change their priorities according to the influence of general factors. The market of electrotechnical equipment and means of industrial automation, averaged, is presented in fig



Pic. 2.3. World market of electrotechnical equipment and means of industrial automation, average indicators of 2021

Source: created by the author based on [15].

The dynamics of the industrial automation market adds new requirements and control from an external independent party and forms the relevant TRENDS of today, namely:

1. Drivers.

Government initiatives regarding the implementation of industrial automation. The governments of countries in the Asia-Pacific region and Europe support the implementation of industrial automation systems and technologies to digitize their individual manufacturing industries. For example, in 2019, the

Chinese government invested \$577 million in new industrial robots as part of its Made in China plan. In this regard, the government aims to improve the production capacity of the Chinese sector. According to its 5-year plan for the development of the robot industry, China plans to develop the best robot manufacturers to create about 8-10 industrial clusters. Additionally, in September 2020, the UK government announced plans to spend around US\$180 million on the Smarter Manufacturing program, which aims to promote innovation and connectivity in the country's manufacturing sector.

Increasing demand for automation solutions to meet security requirements. Many industrial production processes can be dangerous for humans. Throughout the manufacturing process, mechanical failure or human error can lead to fatalities. In this regard, the industrial automation industry must integrate safety measures to avoid accidents at work. Safety compliance automation products help reduce the risk of accidents. As a result, these security tools are built to be reliable and responsive. The International Organization for Standardization (ISO) and the World Electrotechnical Commission (IEC) administer international safety standards for machinery to ensure product quality, worker safety and technical compatibility of products and services.

2.Opportunities.

High usage of industrial automation in healthcare sector

Industrial automation is high in demand in healthcare sector because it provides services and consultation to treat patients' health issues such as palliative, rehabilitative, curative and curative. Control and automation can improve supply chain errors and operational costs and improve customer centre, which accounts for better patient treatment and care. Automation has also allowed doctors to conduct surgeries remotely or with negligible human interference for added safety and precision. Thus, the high usage of industrial automation in healthcare sector will expected to create immense opportunities for the market growth.

3.Restrictants/ Challenges.

Issues associated with industrial automations.

Lack of trained expertise or skilled professionals will pose a major challenge to the growth of the industrial automation market. Moreover, high initial capital investments will act as a major market restraint for the growth of the market. Furthermore, complications involved in the technical applications will further hinder the growth rate of the industrial automation market.

This industrial automation market report provides details of new recent developments, trade regulations, import-export analysis, production analysis, value chain optimization, market share, impact of domestic and localized market players, analyses opportunities in terms of emerging revenue pockets, changes in market regulations, strategic market growth analysis, market size, category market growths, application niches and dominance, product approvals, product launches, geographic expansions, technological innovations in the market. To gain more info on the industrial automation market contact Data Bridge Market Research for an Analyst Brief, our team will help you take an informed market decision to achieve market growth[18].

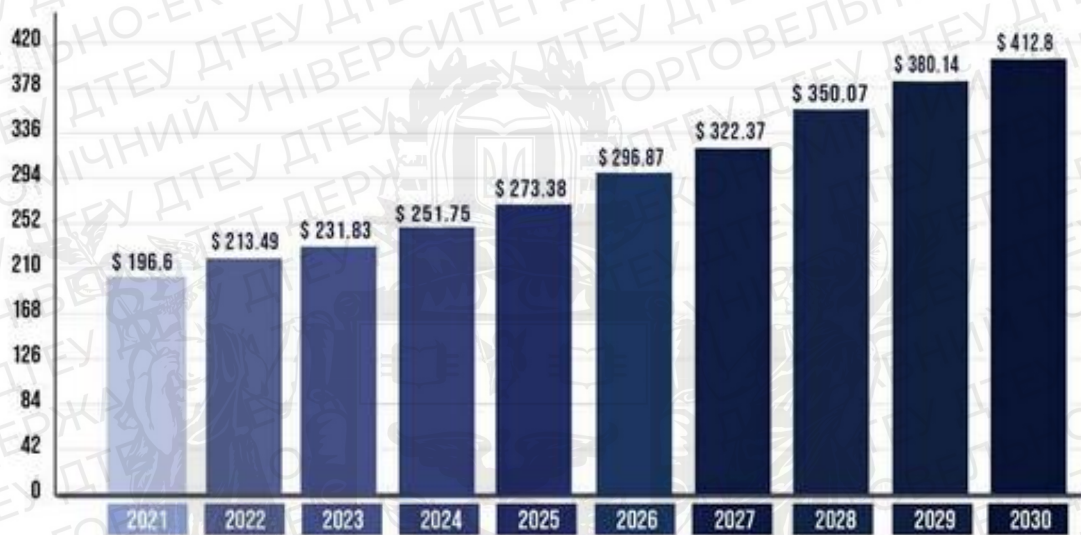
Impact and Current Market Scenario of Raw Material Shortage and Shipping Delays.

Data Bridge Market Research offers a high-level analysis of the market and delivers information by keeping in account the impact and current market environment of raw material shortage and shipping delays. This translates into assessing strategic possibilities, creating effective action plans, and assisting businesses in making important decisions.

Apart from the standard report, we also offer in-depth analysis of the procurement level from forecasted shipping delays, distributor mapping by region, commodity analysis, production analysis, price mapping trends, sourcing, category performance analysis, supply chain risk management solutions, advanced benchmarking, and other services for procurement and strategic support [17].

The import volume of the industrial automation market, in accordance with innovative implementations and developments, also demonstrates a progressive

forecast growth. The global industrial automation market size was estimated at USD 196.6 billion in 2021 and it is expanding to surpass around USD 412.8 billion by 2030 and is poised to grow at a CAGR of 8.59% during the forecast period 2022 to 2030. Asia Pacific industrial automation market was valued at USD 58.7 billion in 2022.



Pic. 2.4. The scope of the industrial automation market in 2021-2030, USD billion

Source: created by the author based on [15].

An in-depth analysis of the electromechanical equipment and means of industrial automation market, as can be seen from Table 2.1, shows that the electrical equipment market is quite saturated, this is due to the growth in demand for power grid capacity, the growth of telecommunications users and the growth of Internet traffic are the main factors contributing to stable growth market. .

Table 2.1.

In-depth analysis of the electrotechnical equipment and means of industrial automation market

Leaders	Advantages
Legrand	<p>Legrand products are found in residential areas, in the administrative sector, and in industrial facilities. Concentration on one business - electrical engineering - allowed Legrand to take a leading position in the rich countries of the world near the window. Legrand's leadership in the market is backed by a high manufacturing culture, as well as great investments in the continued development of new technologies and materials. Legrand - tse 19% of the light market for installation of electric power and 15% of the cable duct market.</p> <p>The company's trade turnover for 2019 was 3.7 billion euros. Legrand united over 33,000 spivrobotniks, who work more in 60 countries of the world. As far as Ukraine is concerned, then Legrand is the only assembler that propagates a new complex of electrical power, from sockets and switches to folding systems for rose control and management.</p>
Schneider Electric	<p>The company of light level in the electricity management hall - offers complex solutions for the key segments of the market: civil and residential life, industry, energy and infrastructure, data processing centers and services. The solution to Schneider Electric electric power is becoming safer, better, more efficient. The main indicators of Schneider Electric in the world: Turnover in 2018: 18.3 billion euros, staff 114,000 recruits in 100 countries, 32% of the turnover falls on the regions, which are developing, research centers in 25 countries.</p>
ABB	<p>Leader in technologies for electric power industry and automation. Technologies, created by a group, allow business enterprises and energy companies to increase their productivity, reducing the negative impact on the middle ground. The ABB group of companies operates in 100 countries and employs close to 124,000 people</p>
Siemens	<p>Working in more than 190 countries of the world, world leader in the field of electrical engineering and electronics, demonstrating high standards of corporate social performance, supporting various projects in the field of education, science, culture and sports.</p>
DEKraft	<p>Engaged in manufacturing and supplying a wide range of low-voltage equipment in the economic segment. There are currently over 900 items of modular equipment, power and switching equipment, electrical enclosures and accessories. The range of products is constantly expanding with dynamics plus 40-50% on the river, constantly satisfying the constantly growing demand of customers. The introduction of new products into the assortment, as well as the addition of products to the current assortment, is carried out by us in advance of withdrawals and assistance of professional installers and ordinary servicemen.</p>
SASSIN	<p>One of the largest exporters of electrical products in the world, No. 1 among exporters of low-voltage electrical products in China. SASSIN Corporation is rightfully written with the high quality of its products and attaches great respect to the service service, making a well-established network of well-stocked products in the whole world. SASSIN Service Centers are in direct contact with caregivers.</p>
EKF	<p>One of the leading manufacturers of low-voltage equipment. Today, the EKF company, as a way of offering its partners a wide range of electrical products - from electrical enclosures and modular automation to power equipment and voltage stabilizers. The nomenclature of the company in 2020 has moved over 4000 positions and continues to grow. The EKF low voltage line includes the most recent market accessibility and unique design features. All low-voltage equipment, which is released under the EKF trademark, undergoes a high level of control, both at the stage of manufacturing electrical products, and in logistics processes.</p>
DKC	<p>The group's warehouse includes three subsidiaries: "DKS Ukraine" and "DKS Europe". Developing its product and distribution network, DKC realizes the mission of providing the lighting market with high-quality electrical products. There are over 10,000 components and accessories in the DCS nomenclature, united in 4 main groups - cable ducts, plastic pipes, metal trays and electrical switchboards. A lot of products, which are developed by the DKS group, are innovative for the electrical market. The leaders of the active work with the achievement of the development of new materials and products, DKS Volodya, a great turn of government patents.</p>
Rittal	<p>There are over 10,000 standard varieties in the assortment, which are available from the warehouse on the day of pickup, as a light supplier of housing technology systems and separate wardrobes and drink, as a supplier of solutions in all areas of the IT industry segments. The Rittal company, one of the first companies in the world, began the production of industrial and electroplated housings on conveyors.</p>

Eaton	Sales in 2020 totaled \$13.7 billion. Eaton offers customers a comprehensive energy management solution, being the world's leader in power generation, power generation and management, and more. Eaton narakhovu 70000 spivrobotnikov and zdiisnyue sales more lower in 150 countries of the world.
Phoenix Contact	Presented in over 60 countries of the world. The sales of Phoenix Contact products are managed through a network of sales and services, which includes 47 subsidiaries and 30 sales representatives from all over the world. Be sure to entrust and speak the client's language - this is the main concept of interaction with the deputy. The company promotes a wide range of new products for industrial electrical engineering, which includes six direct products.
Danfoss	One of the largest industrial concerns in Denmark. Danfoss is a global leader in the distribution, manufacturing, sales and service of mechanical and electronic components for the industry.

Source: created by the author based on [18].

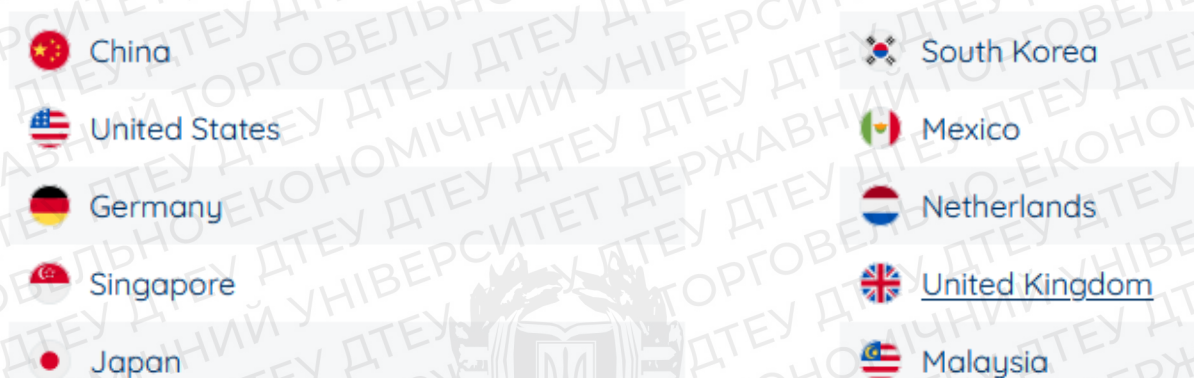
Electrical Equipment is part of Manufacturing and includes a number of sub-sectors such as Turbine. You may also be interested in Metal Manufacturing, Electronic Component and Molding.

Global electrical equipment export is predicted to reach \$2.6 trillion by 2026, a 1.3% annual average growth from \$2.4 trillion in 2021. This is a 4.8% jump from 2017. China led the way in 2021 with exports of \$725 billion, followed by South Korea, the United States and Germany. The Central African Republic saw a 76.2% year-on-year increase, while Gambia dropped by 49.2% since 2017. Global electrical equipment import is estimated to reach \$2.9 trillion by 2026, a 1.3% annual average increase from \$2.7 trillion in 2021. This is a 4.8% growth from 2017. China was the leader in 2021 with imports of \$563 billion, followed by the United States, Germany and Singapore. Malawi saw a 20.3% year-on-year rise, while Uruguay decreased by 7.4% since 2017. European electrical equipment revenue is expected to reach €130.1 billion by 2026, a 0.4% annual average decrease from €133.5 billion in 2021. This is a 1.1% rise from 2017. Germany was the leader in 2021 with revenue of €52.8 billion, followed by France, Italy and Spain. Ireland went up 15.7% year-on-year, while Portugal fell by 11.5% since 2017.

The year 2022 presented us with a group of leaders in the researched market (Pic. 2.5)

Top 10 countries

In 2022 major markets in the Electrical Equipment Industry were:



Pic. 2.5. Leaders in the global electrical equipment market, 2022

Source: created by the author based on [18].

An overview of the global geographic structure of the electrical equipment and industrial automation market is presented in Pic. 2.6

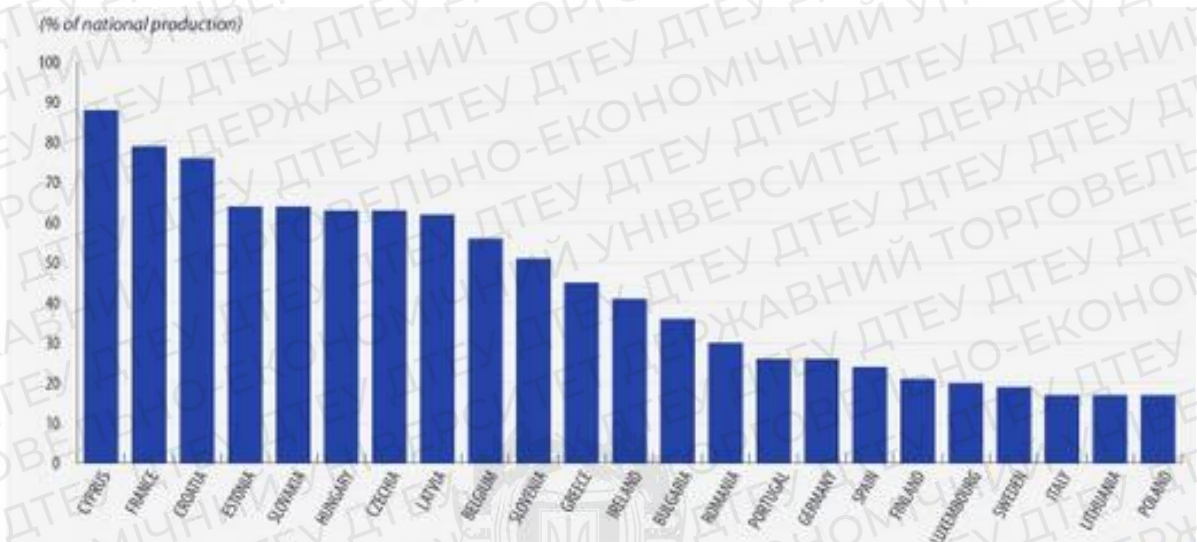
Regions	Revenue Share in 2022 (%)
North America	23%
Asia Pacific	38%
Europe	29%
Latin America	6%
MEA	4%

Pic. 2.6. Industrial Automation Market Share, By Region, 2021 (%)

Source: created by the author based on [18].

Global imports of electrical equipment are forecast to reach US\$2,854,400,000,000 by 2026, from US\$2,661,200,000,000, expected to grow at a CAGR of 4.8%. The United States, Germany, and Singapore ranked 2nd, 3rd, and 4th, respectively.

The market share of the largest generator in the electricity market in 2021 was 88% in Cyprus, 79% in France and 76% in Croatia (Pic. 2.7.)



Pic. 2.7. The main importers on the electrotechnical equipment and means of industrial automation market, 2021, %

Source: created by the author based on [15].

As we have researched, many external and internal factors affect the global market of electrotechnical equipment and means of industrial automation. Finally, geopolitical factors such as trade tensions and changes in government policy may also affect the industrial market in 2023, with the Russia-Ukraine war having the biggest impact.

In summary, the current environment presents both challenges and opportunities for the industrial market in 2023. However, with the right management strategies and high flexibility, companies can succeed and strengthen their long-term market position.

2.2. Domestic peculiarities of market development of Ukraine

The Ukrainian market of electrotechnical equipment and means of industrial automation is represented by both Ukrainian companies and representatives of foreign businesses competing in the promising regional domestic segment. A small number of bright representatives of the market are listed in Table 2.2.

Table 2.2.

Company representatives of the Ukrainian market of electrotechnical equipment and means of industrial automation

Name of Company	Nomenclature
ASKO-UKREM Corporation	Market leader of electrical engineering products of Ukraine. Its main specialization is the production and expert sales of high-quality and affordable electrical equipment for the Ukrainian consumer: low-voltage automation, installation and lighting products, primary power elements.
ЯХОИТ (Eaton Corporation)	A world leader and manufacturer of electrical equipment with a financial turnover of \$19.7 billion last year alone. It is a company that manufactures equipment capable of providing energy-efficient solutions for tasks of any complexity, helping the end user to effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably.
SCaT TM Ukrainian Systems of Cable Routes, LLC	Production and integrated supply of the entire range of products for laying cable routes: metal sleeves, metal cable trays, ladder-type trays (cable trays) and accessories under the SCaT brand
Schneider Electric Ukraine	Representation of the French company Schneider Electric, which is a world expert in energy management and industrial automation. Products: automation, power distribution systems, control and automation, electrical installation products, building automation systems
Chip News	Scientific and technical magazine, which is the most authoritative Ukrainian publication in the field of microelectronics
SMO Ukraine, LLC	The official distributor of the plant CMO VALVES TECHNOLOGY S.L. (Tolosa, Spain), which is the largest European manufacturer of pipeline fittings and pipeline parts for use in the energy, gas and mining industries
E.NEXT-Ukraine	Representation of the international group of companies E.NEXT International Electrotechnical Group, which specializes in the implementation of complex electrotechnical solutions and the automation of technological process management, the production and supply of low and medium voltage panel equipment, cable-conductor and lighting products
EMKA Ukraine, LLC	Representation of the German company EMKA, which is the world leader in the market of locks, hinges and seals used in distribution cabinets, as well as in control and telecommunication cabinets
EXPRO Consulting	The EXPRO consulting company founded the publications EXPRO Gas&Oil and EXPRO Electricity, which are published in weekly and monthly formats in Ukrainian and English. Analytical materials of professional publications have found their readers among the participants of the Ukrainian market and continue to expand geography at the expense of foreign companies operating or planning to start operations in Ukraine
ETI Ukraine, LLC	Official representative office of ETI Elektroelement d.o.o. (Slovenia) - a leading manufacturer of electrical equipment used in industry, energy, construction (automatic switches, switches, load disconnectors, relay equipment, terminals, etc.)
FRTgroup	Development and installation of lightning protection systems, grounding, telemechanics, video surveillance, "smart house", alternative energy sources and electricity supply in general
IEK Ukraine, SE	Production of electrical products under the international IEK brand: energy distribution equipment (modular equipment, power equipment, cabinets, boxes, cable-carrying systems, electrical installation products); equipment for industrial installations (switchgear, motor protection devices, control and control relays); power connectors; products for installation of electrical wiring; lighting equipment (lamps, lighting control)

Source: created by the author based on [20].

The market of automation and electrical equipment is structurally large-scale and represented by various directions in which there are leaders-enterprises. Example, lines of electrical networks among Ukrainian companies should be highlighted: PJSC "Donbaskabel", PJSC "Ukrkabel", CJSC "Pivdenkabel", PJSC "Odeskabel", JSC "Azovkabel".

The analysis of the export-import activity of the market of electrotechnical equipment and means of industrial automation will be carried out according to the structural distribution (Table 2.3) and understanding of the retrospective analysis.

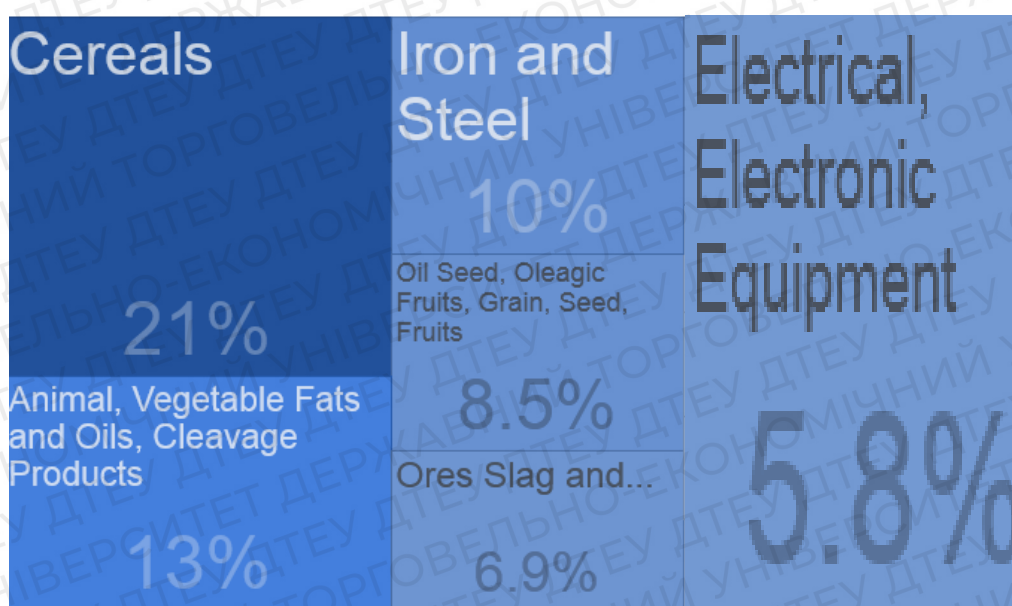
Table 2.3.

TOP-6 Ukrainian exports in 2022

№	Ukraine Exports By Category	Value	Year
1	Cereals	\$9.17B	2022
2	Animal, vegetable fats and oils, cleavage products	\$5.98B	2022
3	Iron and stee	\$4.56B	2022
4	Oil seed, oleagic fruits, grain, seed, fruits	\$3.78B	2022
5	Ores slag and ash	\$3.08B	2022
6	Electrical, electronic equipment	\$2.57B	2022

Source: created by the author based on [22].

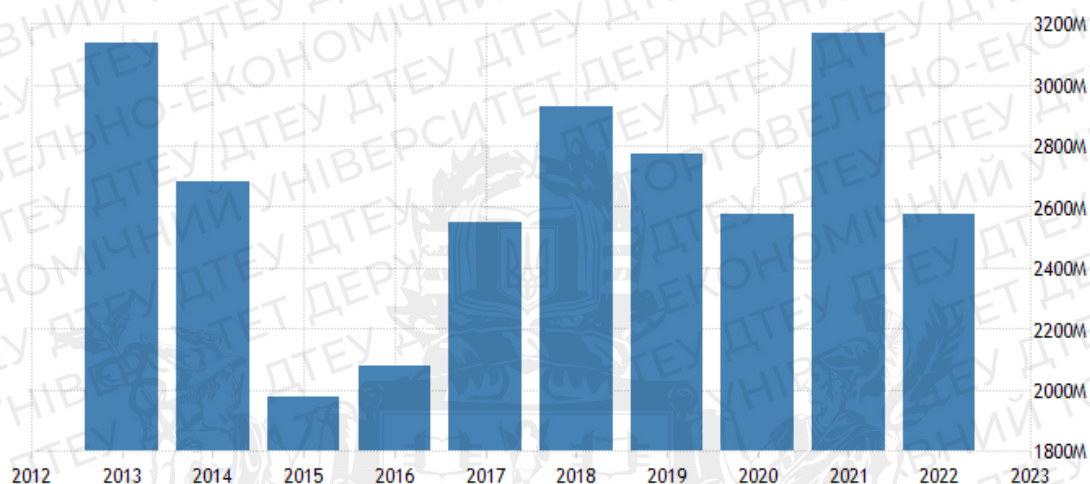
The TOP-6 Ukrainian exports in 2022, expressed as a percentage of the total volume, look as shown in the figure 2.8.



Pic. 2.8. The TOP-6 Ukrainian exports in 2022, %

Source: created by the author based on [22].

Ukraine Exports of electrical, electronic equipment was US\$2.57 Billion during 2022, according to the United Nations COMTRADE database on international trade (Pic. 2.9.).



Pic. 2.9. Exports of electrical and electronic equipment to Ukraine in 2012-2022

Source: created by the author based on [22].

The import of electrotechnical equipment and means of industrial automation, as we can see from the table 2.4. is in the third place in demand by volume

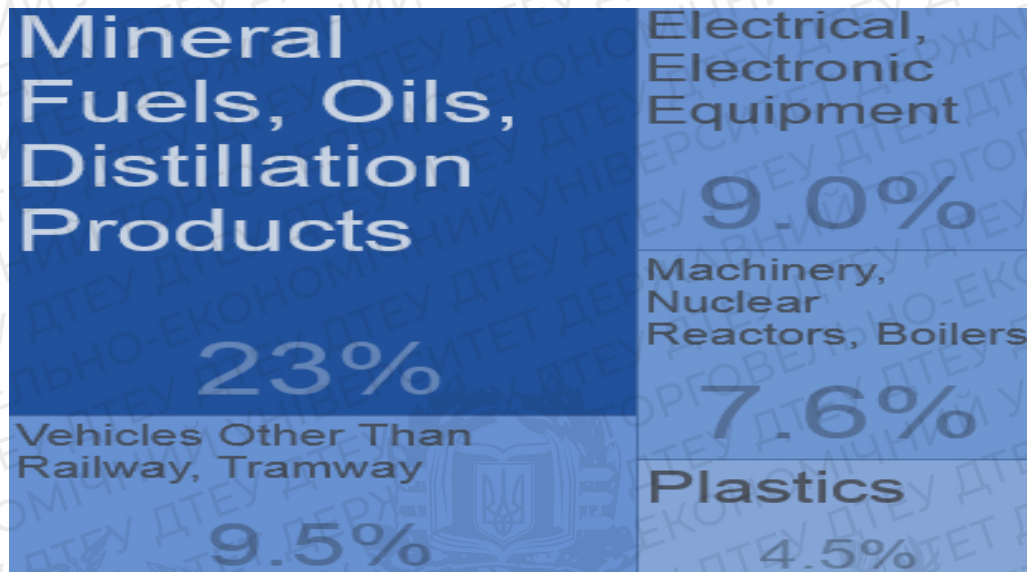
Table 2.4.

TOP-6 Ukrainian exports in 2022

№	Ukraine Imports By Category	Value	Year
1	Mineral fuels, oils, distillation products	\$12.80B	2022
2	Vehicles other than railway, tramway	\$5.22B	2022
3	Electrical, electronic equipment	\$4.98B	2022
4	Machinery, nuclear reactors, boilers	\$4.20B	2022
5	Plastics	\$2.47B	2022
6	Commodities not specified according to kind	\$2.37B	2022

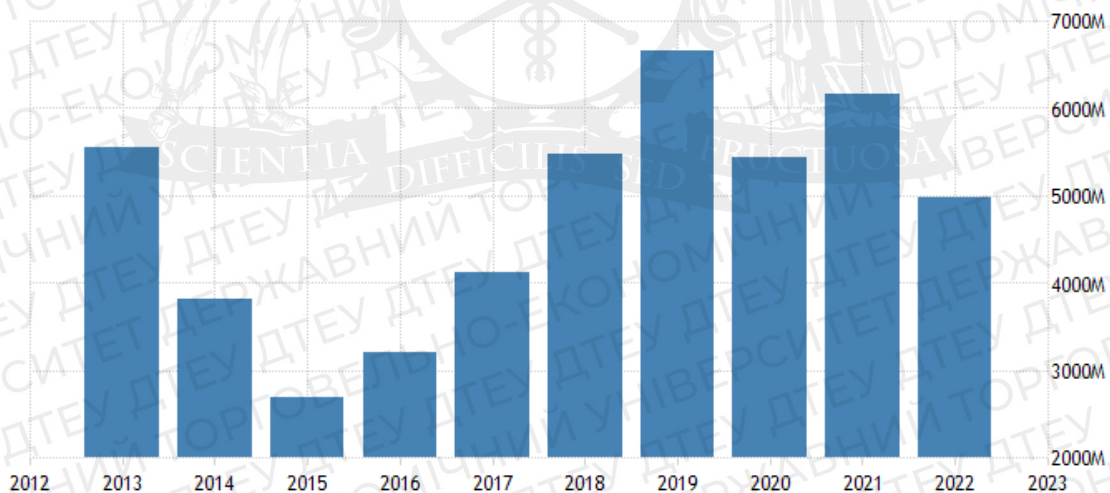
Source: created by the author based on [22].

The TOP-6 Ukrainian imports in 2022, expressed as a percentage of the total volume, look as shown in the figure 2.10.



Pic. 2.10. The TOP-6 Ukrainian imports in 2022, %
Source: created by the author based on [22].

Imports of electrical and electronic equipment to Ukraine during 2022 amounted to 4.98 billion US dollars, according to the UN COMTRADE international trade database (Pic. 2.11.).



Pic. 2.11. Imports of electrical and electronic equipment to Ukraine in 2012-2022

Source: created by the author based on [22].

Electrotechnical equipment and means of industrial automation are closely related to the formation of prices and their changes with energy markets. During the transition to a new market model in Ukraine, price restrictions were

considered the best means of preventing possible price shocks for the population. Although such measures are considered temporary, they are still applied, depriving players of full participation in all market segments and hindering market competition.

In order to implement effective legal instruments at the stage of formation of a new market model, the Secretariat of the Energy Community proposed Recommendations[1] on strengthening competition and liquidity in wholesale electricity markets and energy exchanges. Also, according to the Law of Ukraine "On the Electric Energy Market" (ER), energy generating companies had the right to sell 10% of the generated electricity on the "Day Ahead" market only in the first year of operation. of this segment.

The National Commission for State Regulation in the Energy and Utilities Sectors (NRECP, the Regulator) set price caps that reduced DAM prices to a level lower than the cost of generation and even lower than the break-even point of the power system. in general (850 UAH/MWh in April, 500 UAH/MWh in May and 426 UAH/MWh in July 2021), which significantly affected the pricing of electrical equipment and industrial automation tools. Also, management changes prompted the formation of even more energy-saving trends and the introduction of innovations.

The regulation of the researched market provides for clear requirements and regulations regarding compliance with state standards.

Electrical equipment in the broadest nomenclature when brought to the market of Ukraine is subject to the procedure of assessing compliance with a number of technical regulations[21].

The main technical regulations applicable to electrical equipment are:

Technical regulation of low-voltage electrical equipment, approved by the resolution of the Cabinet of Ministers of Ukraine dated December 16, 2015 No. 1067;

Technical regulation of electromagnetic compatibility of equipment, approved by the order of the Cabinet of Ministers of Ukraine dated December 16, 2015 No. 1077;

Technical regulations on the restriction of the use of certain hazardous substances in electrical and electronic equipment, approved by the order of the Cabinet of Ministers of Ukraine dated March 10, 2017 No. 139.

It should be noted that when assessing the conformity with technical regulations of electrical equipment, it is necessary to clearly define which technical regulations apply to this particular electrical equipment.

It can be one of the above-mentioned technical regulations, two or three.

However, there is electrical equipment, which is covered by more specialized technical regulations, and their assessment of conformity to the above technical regulations such electrical equipment is not covered. Such technical regulations should include:

- Technical Regulations on elevators and safety components for elevators, approved by the Decree of the Cabinet of Ministers of Ukraine from June 21, 2017 № 438;
- Technical regulation on medical devices, approved by the Decree of the Cabinet of Ministers of Ukraine from October 2, 2013 № 753 (if the medical equipment contains electrical equipment);
- Technical regulation of equipment and protective systems intended for use in potentially explosive environments,, approved by the Decree of the Cabinet of Ministers of Ukraine from December 28, 2016 № 1055.

It should be noted that there are sectors of the economy, where there are their own safety requirements for electrical equipment and this equipment is not covered by technical regulations (electrical equipment installed on ships, aircraft, rail transport, in military units, etc.).

Electrical equipment specially designed and manufactured for scientific and research purposes is also not covered by technical regulations.

In recent years, Ukraine has adopted several new laws and government regulations aimed at bringing Ukrainian practices into line with the WTO Agreement on Technical Barriers to Trade (TBT). As part of the Agreement on a Deep and Comprehensive Free Trade Area between Ukraine and the EU in 2016, Ukraine began to approximate its standards to the EU by adopting and implementing various changes to legislation, in particular:

- Law of Ukraine "On Standardization" dated 06/05/2014 No. 1315-VII
- Law of Ukraine "On Metrology and Metrological Activities" dated February 10, 2014 No. 1314-VII
- Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine Regarding Deregulation in Agriculture No. 867-VIII" dated December 8, 2015.

Regarding the tariff regulation of the import of electrical equipment, to note that in view of the complex violation in the energy sector, at the beginning of November 2022, the Government expanded the list of imported goods that can be imported into Ukraine without paying visa duty and VAT. We are talking about generators, batteries, other UPS and electrical equipment. The general list is available on the website of the Verkhovna Rada[24].

Summing up the study of the domestic market of electrotechnical equipment and means of industrial automation, the vast majority (more than 75%) of the market of electrotechnical products falls on the production of electric motors, generators, transformers, distribution devices and cable products. At the same time, 35% of this production is consumed in the fuel and energy complex and agriculture. These are the most stable industries during the crisis, the enterprises of which were not subject to restrictions on self-isolation. Therefore, electrical products in these consumption segments will always be in demand. N

An additional driver here was the growth of electricity consumption and the transition to energy-saving technologies. The further development of the Ukrainian market of electrical engineering products according to the state strategy should take place according to three scenarios:

1. Pessimistic. The unstable situation in the country's economy due to the drop in oil prices and the jump in the exchange rate, aggravated by the impact of the restrictive measures taken to reduce the spread of the coronavirus infection, will negatively affect the production activities of organizations and the timing of the implementation of planned infrastructure projects. In this case, there will be a decline in the industry, and the market for electrical products will fall by 25%.

2. Basic. The implementation of the base scenario is calculated on the basis of the passage of the 2008-2009 crisis by the main consumer industries, as well as taking into account the fact that the gradual recovery of the country's economy will begin closer to the end of 2021. In this scenario, the market will show a 10% drop.

3. Optimistic. According to the optimistic scenario, the market decline is expected at the level of 3%. The reduction of the spread of the coronavirus infection, the cancellation of non-working days for industrial enterprises from mid-May will allow organizations to gradually return to their usual work regime. The growth of exchange rates can also act as an additional driver of import substitution of domestic products.

According to forecasts, as a result of the delayed demand, the market will start to recover globally only in 2024, although we can already state revival and substantial activation.

CHAPTER 3. IMPLEMENTATION OF THE ORGANIZATION OF THE IMPORT OF ELECTRICAL EQUIPMENT AND INDUSTRIAL AUTOMATION TOOLS FROM THE COUNTRIES OF THE EUROPEAN UNION

3.1. Organizations of import from the countries of the European Union of the company "ABR Electric" LLC

Based on the research of the previous sections, we have to analyze the efficiency of the import activity of the enterprise "ABR Electric" LLC. within the framework of electrotechnical equipment and means of industrial automation. Let's do research on the example of a specific operation.

It is appropriate to consider the Slovak market as a potential market for the sale of electrical products. Slovakia ranks 42nd in the country ranking according to the CCS, which is a good indicator, considering that Ukraine is in 85th place. Another important aspect is that Ukraine and Slovakia are neighboring countries, so the Free Trade Agreement is signed. Therefore, the main areas of improvement of the foreign economic activity of the LLC are the optimization of the process of organization of foreign trade; development of a system for the distribution of functional responsibilities in the implementation of foreign economic activity; development of a strategy for the effective development of economic development; introduction of a piecemeal form of payment for employees of the production department and access to foreign markets.

Many entrepreneurs in the modern mind look at the certification and the declaration on the assessment of the quality of their products as if they spent an hour and a lot of money. The consequence is non-compliance of products with the requirements of legislators and as a result - fines, restrictions on the import of goods and market inspection services. In particular, as with the import of lighting equipment, electrical equipment or other products, since this meets the requirements of the Technical Regulations, it is necessary to bring the products from the level of productivity to the requirements of the regulations [27, p. 29].

Representative offices or subsidiary companies of "ABR Electric" LLC operate in more than a hundred countries of the world.

Areas of main specialization in importing LLC "ABR Electric":[29]

- Energy
- Automation

Electric power equipment and automation products produced by LLC "ABR Electric" undergo the strictest control and meet both international and national standards of safety and environmental protection.

The main products of "ABR Electric" LLC for import:

- Management systems
- Integrated systems providing data collection, diagnostics and transmission. The equipment is always supplied with original software packages.
- Electric motors, drives and power electronics
- ABB AC and DC drives, high voltage and low voltage motors can be used in any environment, including hazardous ones.

For the second year of the Russian Federation's full-scale military aggression against Ukraine, the Republic of Slovenia has been providing us with comprehensive assistance: humanitarian, financial, and military. Slovenia contributes to the political and material support of Ukraine from the EU and NATO, so that Ukraine can effectively defend its territories, and also supports the territorial integrity and sovereignty of our state. Ukraine has the support of Slovenia regarding the future status of a candidate for EU membership and support in the perspective of NATO membership.

Considering the expansion of import markets, our company cooperates with Slovakia.

Available advantages and disadvantages. Namely, the most time will be needed for the delivery of electrical equipment - 25%, then the transportation contract - 16%, readiness to accept the goods and readiness for shipment - 10%

each. Purchase request, offer, emphasis on offer and insurance occupy the least places - 4% each (Fig. 3.1).

But analyzing the prospects of cooperation, conducting foreign economic monitoring, LLC "ABR Electric" within the framework of the import of electrotechnical equipment and means of industrial automation is actively smoothing the perspective of mutual activity.

The example we are studying will show the advantages and prospects of loyalty in relations with representatives of Slovakia

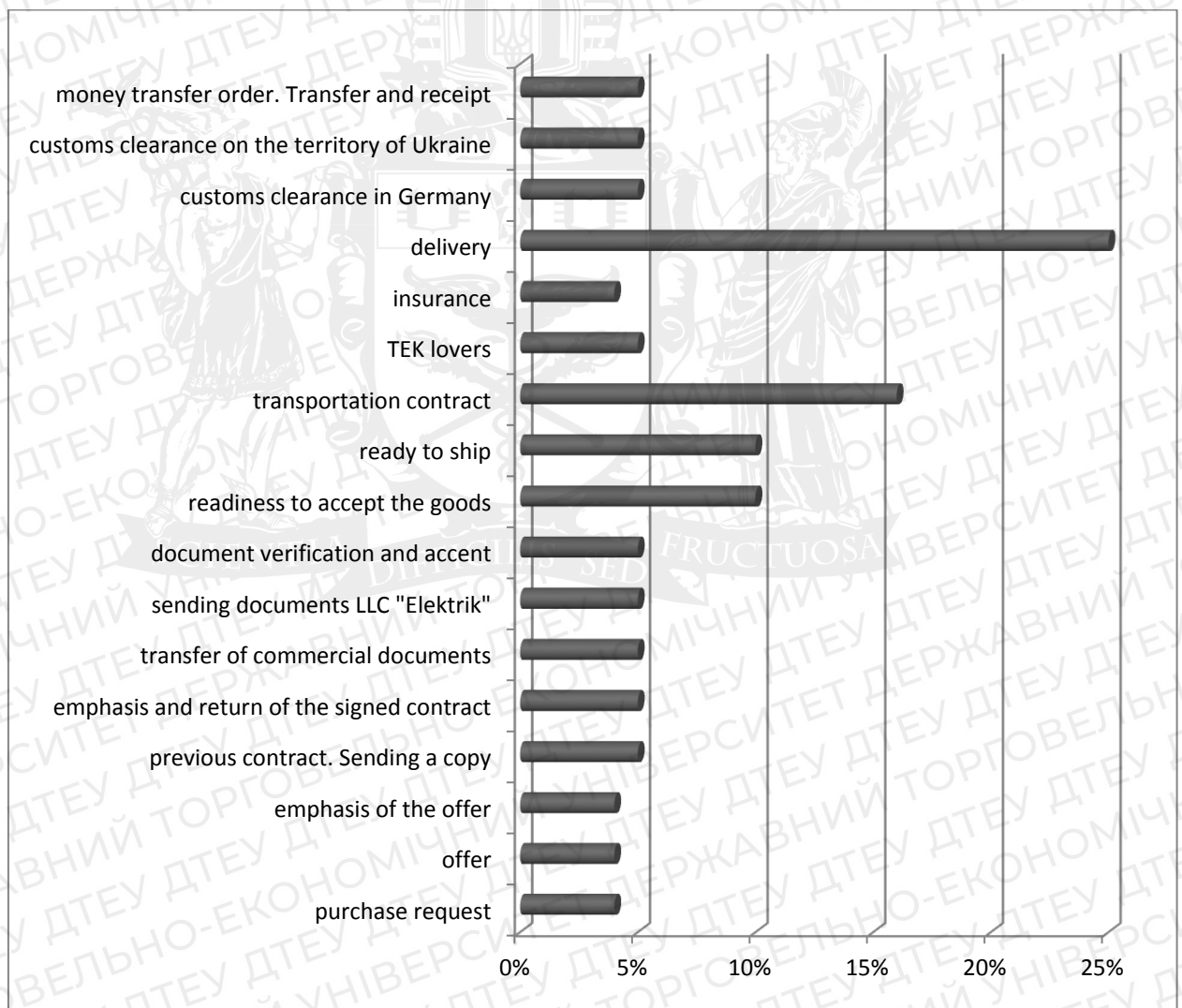


Fig. 3.1. Diagram of import of electrical equipment from Словацьчини to Ukraine

Source: author's calculations

Entry conditions regarding the organization of the import contract:

- **SHANDONG BISON MACHINE CO., LTD (Ljubljana):** The company develops hydrogen production systems based on water electrolysis. Offers comprehensive solutions for hydrogen production, compression and storage. Electrolyzers are adaptive, environmentally friendly hydrogen generators that allow you to create hydrogen stations with hydrogen capacity from 0.5 Nm³/h to 210 Nm³/h and more.
- **Product item for order:** *Modularni elektrolizer za proizvodnjo vodika* (Modular electrolyzers for water production)
- **Position price** - €11,000
- **Quantity** - 2 units

"ABR Electric" LLC is set to organize the supply of a batch of equipment from SHANDONG BISON MACHINE CO., LTD (Ljubljana). No additional resources are required for this particular operation. In particular, the issue of labor resources has been resolved by the available professional personnel in relation to procurement and cooperation with the countries of the European region.

The question of financing the operation is possible in two formats:

1. full prepayment (for this option there are available working capital in "ABR Electric" LLC)
2. - partial prepayment with full payment after receiving the order, without changing the total amount of the order (no additional costs are provided) (these are more favorable conditions for "ABR Electric" LLC).

Any format is acceptable for the company under study and the calculation will not be affected, since the amount will remain the same, the impact is possible only for the time of the operation (which requires additional calculations regarding continued savings).

The general consistency and planning within the management of the analyzed operation is presented in Fig. 3.2.

Let's build a Gantt chart to ensure the import of electrical equipment to "ABR Electric" LLC (Fig. 3.2)

Name of the period	1st year of project implementation			
	1 quarter	2 quarter	3 quarter	4 quarter
Involvement of a sales representative in the international market for the sale of electrical equipment, who will participate in cooperation with global companies that need to import electrical equipment				
Import of electrical equipment				
Calculation of necessary funds and sources of profitability				
Rational use of marketing to promote the import of electrical equipment				
Evaluation of the profitability of measures				

Fig. 3.2. Gantt chart for ensuring the import of electrical equipment in "ABR Electric" LLC

Source: created by the author based on [29].

Accordingly, the most time will be required for the delivery of electrical equipment - 25%, then the transportation contract - 16%, readiness to receive the goods and readiness to ship 10% each. Purchase request, offer, emphasis of the offer and insurance occupy the least space at 4% each.

The implementation of operations within the framework of signed new foreign economic contracts is offered on the same basic terms of delivery: the import of products by a foreign company takes place on the terms of EXW (Ljubljana). They provide for the foreign company to bear the main costs and cover the optimal costs of "ABR Electric" LLC, which affects the level of the effect obtained from the implementation of a foreign economic operation.

In order to ensure the development of the ZED in the LLC, it is necessary to attract additional personnel for the production of products. In order to attract an additional number of employees, it is proposed to improve the working conditions and the work schedule of the employees of the production department. Currently, the company has established an hourly wage, which provides for the payment of funds for the time actually worked. Type - simple hourly - labor is paid at hourly tariff rates, monthly wages for time. A simple unitary form of payment is offered - payment by the amount of work performed. Since the operations are performed in a clearly defined time, in our case in two weeks, the speed of order execution is important [36]. The introduction of an appropriate form of payment will also provide an opportunity to independently regulate their working hours, an employee can produce a given amount of products per shift and end his working day or work a full shift, producing a larger amount of products and at the same time receive a higher salary. Such changes, in our opinion, will lead to an increase in the number of employees and an increase in interest in the growth of the volume of manufactured products per shift, which is a necessary condition for the development of FZ [28].

We will specifically analyze the details of **Contract No. 474/33 dated 05/23/2023** between the Company "SHANDONG BISON MACHINE CO. LTD", m. Ljubljana and Limited liability company "ABR Electric", Kyiv:

The Supplier undertakes to deliver and hand over to the Buyer modular electrolyzers for water production, and the Buyer undertakes to accept and pay for the Goods in the manner and under the conditions specified in the

Agreement. In addition, the product has certificates and international quality certificates.

The term of delivery of the Goods by the Supplier is 15 calendar days from the moment the Parties sign the specification for this Agreement. The Supplier delivers the Goods on EXW (Ljubljana) terms (Incoterms 2020).

The price of the Goods, the price of the Contract, the order and term of payments

The price of the Goods includes the cost of export containers (packaging), marking and customs duties in the Supplier's country. The price of the Agreement is 22,000 euros. Payment by the Buyer of the Goods is made in the following manner - 100 (one hundred) % of the value of the Goods - within 3 (three) banking days from the moment of actual receipt of the Goods by the Buyer.

The Supplier guarantees the quality of the Goods within 12 (one year) calendar months from the start of operation of the Goods, but no more than 12 (one year) calendar months from the moment the Buyer actually receives the Goods.

In case of late payment of the Goods by the Buyer, the Buyer shall pay the Supplier a penalty in € in the amount of 5% of the amount owed for each day of delay in payment of the Goods, including the day of payment, based on the written claim of the Supplier.

We will calculate the effectiveness of the proposed import operation in the next section of the study.

3.2. Forecast assessment of the realization of the import of electrotechnical equipment and means of industrial automation of the company "ABR Electric" LLC

For further analysis of the effectiveness of the foreign economic agreement, a comparative table of potential new product sales markets has been compiled (Table 3.1).

Table 3.1.

**Data on a potential new market «ABR Electric" LLC - SHANDONG
BISON MACHINE CO., LTD (Ljubljana)**

№	Country	Slovakia
1	Source of price information	Offer price
2	The price of the product is for 1 piece	€11,000
3	Terms of delivery	EXW (Ljubljana)
4	Delivery size, pieces	2
5	The predicted index of changes in world prices since the fixation of commodity prices	0,98
6	The predicted index of changes in the exchange rate of the national currency from the moment of fixing the prices of goods to the moment of possible conclusion of the contract (for the entire term)	0,998
7	Forecasted average annual growth indices of world prices	1,3
8	Forecasted average annual growth indices of the national currency exchange rate	1,06
9	euro exchange rate, EUR / UAH	39,00
10	type of transportation	land/ automobile/ cargo
11	Product	Modular electrolyzers for water production
12	Customs fee of the declared value	-
13	VAT	-
14	Costs for loading goods onto a vehicle	0,75%
15	Transport insurance	2%
16	Costs for transporting goods to the importer's warehouse	8%
17	Selling (Ukrainian market) price	60500 UAH/ per pc

Source: developed by the author

We will provide a SWOT matrix «ABR Electric» LLC» - analysis of the development and prospects of the import potential (Table 3.2).

Table 3.2.

SWOT matrix - analysis of the development of the import potential of electrical equipment

<p>S (strong)</p> <p>Great industrial potential; The infrastructure of railway transport is developed, the presence of river ports. Preserved scientific potential in the field. A sufficient number of labor resources of appropriate quality to meet the needs of employers. - the presence of institutions that support import and export activities (Chamber of Commerce, etc.).</p>	<p>W (weakness)</p> <p>The regional innovation system is insufficiently developed. The mono-professional economy of many cities of the region. High resource- and energy-intensive production. An insignificant share of small and medium-sized businesses in the structure of the region's economy, lack of infrastructure to support SMEs. Weak links between research institutions and business.</p>
<p>O (opportunities)</p> <p>Signing the agreement on the free trade zone with the EU without exceptions and restrictions. Mastering the markets of Europe and Asia, Africa. Growth in global demand. Introduction of achievements of international practice, innovations and technologies.</p>	<p>T (threats)</p> <p>Military conflict with Russia; Reducing the number of labor resources in the next 10 years and increasing the social and financial burden on one worker. Decrease in demand for products on international markets. Unfavorable business climate in Ukraine. The increase in world energy prices. Reduction of state funding of national programs to support the development of enterprises, imports and exports.</p>

Source: developed by the author

In general, the strong sides of the development of the enterprise's import potential are: the presence of significant accumulations of resources, developed foreign economic relations and financial infrastructure. These strengths are a comparative advantage, as they can be supported by such opportunities as growth in the medium-term perspective of world demand for products, as well as the signing of a free trade agreement with the EU without exceptions and restrictions; developed foreign economic relations and financial infrastructure. These strengths are a comparative advantage, as they can be supported by such

opportunities as medium-term growth in global demand for products, as well as the signing of a free trade agreement with the EU without exceptions and restrictions.

Signing an agreement on a free trade zone with the EU without exceptions and restrictions will contribute to the fact that the share of products with a higher degree of processing will increase in the structure of imports and exports. At the same time, this will happen only if the business climate improves, investments are made in the modernization of existing capacities and the creation of new ones.

In principle, the definition of risk begins with an analysis of strengths and weaknesses, that is, a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats). This can be done as part of a meeting with interviews with key company executives. A SWOT analysis is a simple tool that helps to understand risk management in a company and shows the existing connections between the main problems and the goals of the company. In addition, the purpose of the SWOT analysis is to identify the main internal and external factors that affect the development and values of the company and the implementation of initiatives, etc.

These are all the types of risks associated while importing goods into India from any country. We have listed only the 8 most common import risks.

1. **Transport risk** – The goods can be lost, damaged, or delayed during transit
2. **Political risk** – If the government imposes a ban on certain products or restricts/prohibits importing from certain countries with immediate effect.
3. **Quality risk** – the goods imported are not of the expected quality
4. **Commercial risk** – If the product is not accepted by the market and is returned after use or the product simply won't sell. Such risks happen due to inadequate research and know-how in the market.
5. **Delivery Time risk** – on-time delivery is important for certain importers as traders must deliver goods to buyers and manufacturers must start

production on time. Delivery time delay is one of the most common risks involved in importing goods.

6. **Exchange rate risk** – This is basically associated when the foreign exchange wherein the exchange rate keeps changing frequently.
7. **Natural calamity** – occurrence of a natural calamity might destroy the goods[30].

Although there are risks associated with every business, building a strong business strategy to overcome such risks is essential and therefore knowing all the risks involved in the importation process is very important. Research about the risks should not demotivate to start importing, but rather influence the search for solutions and better development.

When calculating the impact on the efficiency of the proposed import operation, it is necessary to consider complex risks (Fig. 3.3).

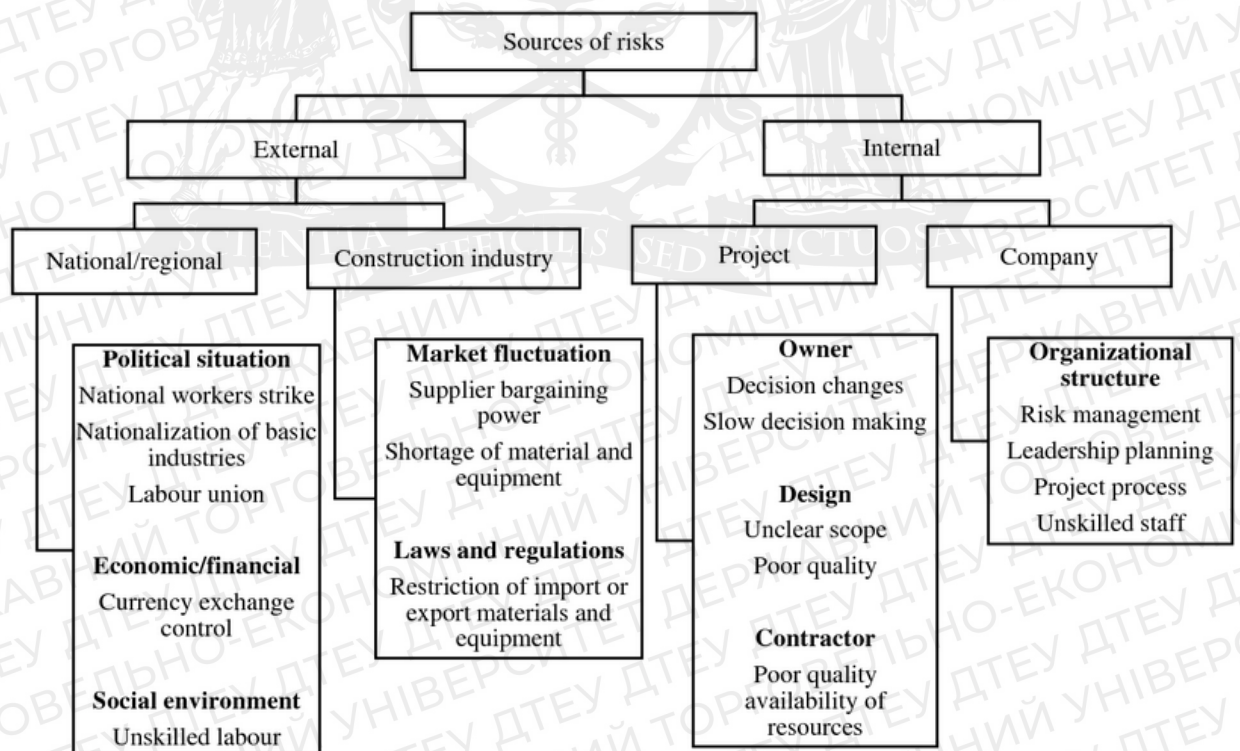
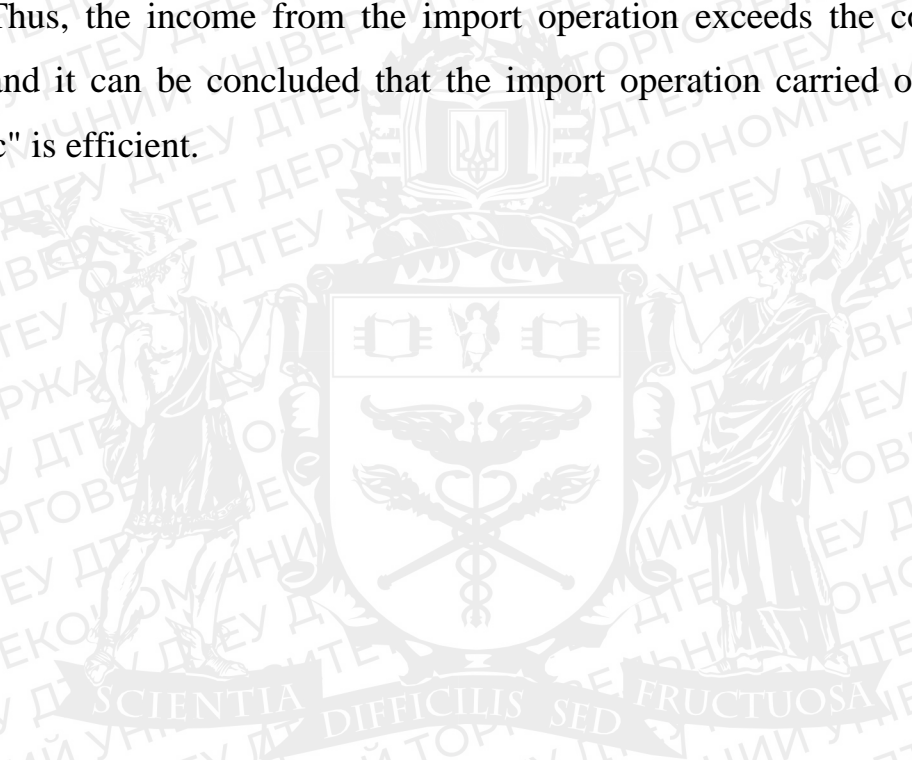


Fig. 3.3. Internal and external risks for ensuring the import of electrical equipment in "ABR Electric" LLC

Source: developed by the author

Considering the input conditions of our researched import operation between Company «SHANDONG BISON MACHINE CO. LTD", m. Ljubljana and Limited liability company "ABR Electric", Kyiv under the terms of delivery EXW (Ljubljana), and then under the terms of Contract No. 474/33 and implementation on the market of Ukraine, an efficiency result of 1,27 was obtained, which demonstrates the validity of the operation.

Thus, the income from the import operation exceeds the costs by 1,27 times and it can be concluded that the import operation carried out by "ABR Electric" is efficient.



CONCLUSIONS AND PROPOSALS

Summarizing the research, the following conclusions can be drawn - the main trends in the world today have become the following areas: the development of direct current transmission systems, cable lines for underwater laying and cables for connecting renewable energy sources, reducing energy transmission costs by increasing the carrying capacity of existing power transmission lines, improvement of voltage classes in the network and innovative design solutions and installation methods. The directions of these directions are shown by the world leaders of the electrical engineering market

Both the global and Ukrainian electrotechnical equipment and means of industrial automation markets are filled with the latest progressive products and technologies.

Currently, every successfully developing company develops its own strategic management system, constantly improves it, invests in it, considering it as an important part of its intangible capital - intellectual assets, such as the creative potential of personnel, unique organizational knowledge, innovations in general. stages of product creation before its movement from the producer to the consumer. For an effective innovative breakthrough, the economy of Ukraine needs a transition to a qualitatively new level of management, the formation of a new type of strategically thinking and dynamic managers with social responsibility, capable of ensuring the leadership of their companies in the market, developing their human capital and socio-economic environment. As we analyzed, state regulation at the expense of strategic programs contributes to this trend, but more constructive and operational implementation is needed.

The company "ABR Electric" LLC analyzed by us implements the standards and directions of effective management of foreign economic activity as much as possible.

In the conditions of growing competition, the development of non-standard thinking of managers is important, since only new and more sophisticated

strategies than those of competitors can ensure success in modern markets. The conducted study of modern trends in the functioning of the Ukrainian market of electrotechnical industrial products shows great potential and, accordingly, investment attractiveness and potential opportunities.

Taking into account the specifics of the enterprise's activity and its work at the current stage, the following ways of increasing the efficiency of activity are proposed: it is advisable to consider the market of Slovakia as a potential market for the import of electrical products. Slovakia ranks 42nd in the CCS country ranking, which is not bad considering that Ukraine is in 85th place. Another important aspect is that Ukraine and Slovakia are neighbors, which is why the Free Trade Agreement was signed.

The obtained practical results can be used by teachers, economists, managers, students, as well as in the study of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union. The analyzed example of the contract demonstrated the efficiency of imports from Slovakia (efficiency coefficient - 1.27), which provides an argument for further cooperation, but does not stop the expansion of the boundaries of cooperation with other countries. The main conclusions and practical recommendations of the work can be applied in practice to study the peculiarities of the organization of the import of electrotechnical equipment and means of industrial automation from the countries of the European Union.

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APPLICATIONS

APPLICATION A

**Financial statements of «ABR Electric» LLC
in thousand UAH for 2018-2020**

Assets

Line name	Line code	As of 31.12.2018	As of 31.12.2019	As of 31.12.2020
ASSETS	1000	11817	20092	18604
1. Non-current assets	1001	5057	9935	11245
Intangible assets	1002	0	0	359
Unfinished capital investments	1010	327	2159	3402
Fixed assets	1011	4509	7646	7386
Long-term receivables	1012	221	130	98
2. Current assets	1095	6760	10157	7359
Reserves	1100	3804	7641	5617
Current biological assets	1103	0	25	0
Accounts receivable for products, goods, works, services	1125	805	1770	1375
Accounts receivable for settlements with the budget	1135	0	134	0
Other current receivables	1136	1465	152	149
Money and its equivalents	1155	172	14	8
Other current assets	1190	1 003.10	120.30	787.50
Total for Section II	1195	7 064.00	4 448.60	10 394.00
Balance	1300	7 593.70	4 897.90	10 764.10

APPLICATION B

**Financial statements of «ABR Electric» LLC
in thousand UAH for 2018-2020**

Liabilities

Line name	Line code	As of 31.12.2018	As of 31.12.2019	As of 31.12.2020
PASSIVES		11817	20092	18604
1. Own capital		3648	3728	3773
Registered (share) capital	1400	1093	1093	1093
Additional capital	1420	2555	2635	2680
2. Long-term obligations and security	1425	57	57	0
Other long-term liabilities	1495	57	57	0
3. Current liabilities and security	1615	8112	16307	14831
Current payables:	1620			
for products, goods, works, services		1392	3897	3490
according to calculations with the budget		522	1188	5483
according to insurance calculations		274	366	354
according to salary calculations		837	1147	1433
Current provisions		0	2	1
Other current commitments		5087	9707	4070
Other current liabilities	1690	5 983.00	723.40	4 718.40
Total for Section III	1695	7 810.90	2 646.30	7 745.00
Balance	1900	7 593.70	4 897.90	10 764.10

ETI main products

Electrical equipment

- ASTI
 - EVE. Modular devices
 - ETICON. MODULAR, MINIATURE AND POWER CONTACTORS
 - CP. COMPONENTS OF JET COMPENSATION SYSTEMS
 - ETITEC. Surge arresters
 - DIDO. Switchboards
 - TIMETR. MEASURING INSTRUMENTS ANALOG AND DIGITAL
 - ETIBREAK. INDUSTRIAL CIRCUIT BREAKERS
 - ETIPOWER. AIR CIRCUIT BREAKERS
 - ETISWITCH. SWITCHES, SWITCHES AND DISCONNECTORS
 - SM. WIRING TERMINALS
 - ETISIG. BUTTONS, SWITCHES, LIGHT FITTINGS
 - D. Low Voltage Fuses
 - D0. Low voltage fuses
 - C. Disconnectors, Fuses
 - NV/NH. High power low voltage fuses
 - ULTRA QUICK. Fuses for semiconductor protection
 - VV. HV fuses and fuse bases
 - ETISURGE. High voltage surge arresters
 - IZOLATORJI. LINE COMPOSITE INSULATORS FOR NETWORKS
 - ETILINE. Fuse holder type BN
 - SPOJ. Industrial switchboards
 - ETITRAFO. Low voltage transformers
- ### Technical ceramics
- PIPES AND FUSE HOLDERS
 - IZOLATORJI. Low and medium voltage insulators

- CERAMIC PRODUCTS C 111
- SUBSTRATES OF RESISTIVE ELEMENTS
- PRESSED STEATITE PRODUCTS
- CORDIERITE PRODUCTS REFRACTORY PRODUCTS FOR

METALLURGY

- REACTION COLUMN FILLERS
- PIPES FOR IMMERSION HEATER
- MALL PRODUCTS
- SPECIAL LIMITED SERIES PRODUCTS
- INSULATION ELEMENTS USED IN WELDING AND HEAT

ENGINEERING

ETI rubber and plastic products: applications

- Automotive industry
- Electrical appliances
- Fire-fighting equipment
- Livestock
- Chemical industry



Contract № 474/33

Kyiv, Ukraine

23 05 2023 year

Company «SHANDONG BISON MACHINE CO. LTD», m. **Ljubljana**, Slovakia, represented by the director Laszlo Kirev, who acts on the basis of Global Supplier (hereinafter referred to as the Supplier), on the one hand, and **Limited liability company «ABR Electric»**, Kyiv, Ukraine, in the person of the director Volodymyr Oleksandrovich Borbat, acting on the basis of the Charter (hereinafter - the Buyer), on the other hand, and jointly - the Parties, and separately - the Party, concluded this Supply **Contract № 474/33** of 23.05.2023 (hereinafter referred to as the Agreement) is about the following:

1. Subject of the Agreement

1.1. The Supplier undertakes to deliver and hand over to the Buyer **modular electrolyzers for water production** (hereinafter referred to as the Goods), and the Buyer undertakes to accept and pay for the Goods in the manner and under the conditions specified in this Agreement..

1.2. The Supplier guarantees to the Buyer that the Goods belong to him by right of ownership, are not subject to the prohibition of alienation, are not the subject of a pledge or other means of ensuring the fulfillment of obligations to any. individuals or legal entities in state bodies and is not subject to any other encumbrances or restrictions provided for by law.

1.3. Product no mark, Product nomenclature, Product code according to UCT ZED, Product unit, Product quantity, Product price and other data necessary for the organization. Deliveries of the Goods are determined by the specifications, which are signed by the Parties for each delivery of the Goods and are an integral part of this Agreement.

2. Terms and conditions of delivery of the Goods

2.1. The term of delivery of the Goods by the Supplier is 15 calendar days from the moment the Parties sign the specification for this Agreement.

2.2. The Supplier delivers the Goods on EXW (Ljubljana) terms (Incoterms 2020).

2.3. The goods are delivered by the Supplier in a container (packaging), which must meet the standards or technical conditions and ensure its preservation in proper condition during transportation and storage. The product must be accompanied by a packing list.

2.4. The Supplier shall be liable to the Buyer in € for any damage to the Product caused by improper packaging, corrosion, additional shipping and storage costs caused by sending the Product to the wrong address due to incorrect labeling.

2.5. Marking is applied clearly in English on each cargo space.

2.6. For each delivery of the Goods, the Supplier provides the Buyer with the following documents: invoice; CMR (bill of lading); packing list; certificate of origin; quality certificate.

3. The price of the Goods, the price of the Agreement, the order and term of payments

3.1. The price of the Goods is determined by the specifications, which are signed by the Parties for each delivery of the Goods and are an integral part of this Agreement.

3.2. The price of the Goods includes the cost of export containers (packaging), marking and customs duties in the Supplier's country.

3.3. The price of the Agreement is €22,000.

3.4. The price of the Agreement is determined by the total amount of delivered and paid Goods in accordance with the specifications signed by the Parties and invoices issued by the Supplier under this Agreement during the term of this Agreement.

3.5. Payment by the Buyer of the Goods is made in US dollars, in a non-cash manner, by transferring funds from the Buyer to the Supplier's account, on the basis of the invoice issued by the Supplier to this Agreement.

3.6. All bank charges related to the Supplier's bank shall be borne by the Supplier. All bank charges related to the Buyer's bank are borne by the Buyer. All expenses for the commission of transit correspondent banks are borne by the Buyer.

3.7. Payment by the Buyer of the Goods is made in the following order - 100 (one hundred) % of the value of the Goods - within 3 (three) banking days from the moment of actual receipt of the Goods by the Buyer.

4. Product quality, Product completeness and Product warranty

4.1. The quality of the delivered product must meet the quality standards adopted by the manufacturer and be confirmed by the manufacturer's quality certificate.

4.2. The supplier is responsible for the quality of the product delivered by him and guarantees its quality as a whole, including components and accessories.

4.3. The Supplier guarantees the quality of the Goods within 12 (one year) calendar months from the start of operation of the Goods, but no more than 12 (one year) calendar months from the moment the Buyer actually receives the Goods.

4.4. In case of replacement of goods of inadequate quality with goods that meet the terms of this Agreement, the warranty period for it begins to expire from the moment of replacement.

4.5. The Buyer has the right to submit a written claim to the Supplier in connection with the identified defects of the Goods during the warranty period for the Goods.

5. Liability of the Parties

5.1. In the event of a breach by the Parties of their obligations under this Agreement, the Parties bear the responsibility determined by this Agreement and the current legislation of Ukraine.

5.2. In case of delay by the Supplier in terms of delivery or non-delivery of the Goods, the Supplier shall pay the Buyer a penalty in € in the amount of 5% of the amount of the undelivered or undelivered Goods. for each day of late delivery or non-delivery of the Goods, including the day of payment, based on the Buyer's written claim, and also compensates the Buyer for documented

losses incurred by the Buyer in accordance with the requirements of clause 5.6. of this Agreement, based on the written claim of the Buyer.

5.3. In case of delay in payment of the Goods by the Buyer, the Buyer shall pay the Supplier a penalty in € in the amount of 5% of the amount owed for each day of delay in payment of the Goods, including the day of payment, based on the written claim of the Supplier.

5.4. The supplier is responsible for the quality of the goods delivered by him. If the quality of the Product does not meet the established quality standards or defects or hidden defects are discovered during its warranty period, the Supplier is obliged to replace the low-quality Product.

The Supplier must replace the poor-quality Goods with Goods of proper quality within 10 (ten) days from the moment of receiving the relevant written notification from the Buyer. All costs caused by the replacement of poor-quality Goods with Goods of proper quality, or the delivery of undelivered Goods, including transport and customs costs, shall be borne by the Supplier. If it is not possible to carry out such a replacement of the Goods, the Supplier shall return the money to the Buyer in the amount of the defective Goods and pay the Buyer a fine in US dollars in the amount of 20 (twenty)% of the amount of the defective Goods, based on the written claim of the Buyer.

5.5. The Buyer has the right to unilaterally refuse to perform this Agreement in case of delivery of Goods of inadequate quality, with written notification of the Supplier. In this case, the Supplier is obliged to compensate the Buyer for the documented losses incurred by the Buyer, related to the early termination of this Agreement, based on the written claim of the Buyer.

5.6. Regardless of the payment of a fine in US dollars, the Party that violated the terms of this Agreement shall compensate the other Party for the actually caused (that is, actually accounted for) as a result of this, documented damages in the part not covered by the fine in US dollars, based on the written claim of the corresponding Party.

5.7. Payment by the Party of a fine in US dollars and/or compensation for documented damages caused by violation of the terms of this Agreement to the other Party does not release it from the obligation to perform this Agreement in kind, unless otherwise expressly provided by the legislation in force in Ukraine.

6. Dispute resolution procedure

6.1. In the event of disputes and/or disagreements under this Agreement or in connection with it, the Parties will take all necessary measures to reach an agreement through negotiations and/or through written correspondence (sending written claims), with appropriate written responses to the written letter (written claim) no later than 14 (fourteen) calendar days from the moment of receipt, and in case of non-receipt (for any reason) 14 (fourteen) calendar days from the moment of sending such a written letter (written claim) by the interested Party.

6.2. If the Parties have not reached an agreement through negotiations and/or through written correspondence (sending written claims), disputes and/or disagreements under this Agreement or in connection with it shall be resolved in the Commercial Court of Kyiv, Kyiv, Ukraine, in accordance with current legislation of Ukraine. The language of commercial proceedings is Ukrainian.

7. Force majeure circumstances

7.1. In the event of force majeure (threat of war, armed conflict or serious threat of such conflict, including but not limited to enemy attacks, blockades, military embargoes, acts of a foreign enemy, general military mobilization, hostilities, declared and undeclared war, acts of a public enemy ,

disturbance, acts of terrorism, sabotage, piracy, disorder, invasion, blockade, revolution, mutiny, insurrection, riot, curfew, expropriation, seizure of enterprises, requisition, public demonstration, blockade, strike, accident, illegal action of third parties, fire, explosion, long interruptions in the operation of transport, regulated by the terms of relevant decisions and acts of state authorities, closure of sea straits, embargoes, prohibition (restriction) of export/import, etc., as well as caused by exceptional weather conditions and natural disasters, namely : epidemic, severe storm, cyclone, hurricane, tornado, storm, flood, accumulation of snow, ice, hail, frost, freezing of the sea, straits, ports, passes, earthquake, lightning, fire, drought, subsidence and landslide, other natural disasters etc.), provided that the affected Party notifies the other Party in writing within 10 (ten) working days of the occurrence of such force majeure circumstances (while providing evidence of their existence, confirmed by the Chamber of Commerce and Industry of the country of the Supplier or the Buyer or regional authorities authorized by it chambers of commerce and industry of the country of the Supplier or the Buyer), and provided that such force majeure circumstances continue for no more than 14 (fourteen) calendar days, the other Party agrees that the term of performance of obligations by the affected Party will be extended for the period that is equal to the term of this delay. In the event that the force majeure circumstances last longer than the specified period, this Agreement becomes invalid (which is executed by the Parties signing an additional agreement to this Agreement), unless the other Party agrees in writing to extend it. At the same time, fines imposed by any of the Parties on the other Party shall not be applied.

8. Confidentiality

8.1. The Parties have agreed that the text of this Agreement, any materials, information and information related to this Agreement are confidential and may not be transferred to third parties without the prior written consent of the other Party, except when such transfer is related to obtaining official permits, documents for the execution of this Agreement or the payment of taxes, other mandatory payments, as well as in cases provided for by the current legislation of the Supplier's or Buyer's country.

8.2. Confidentiality obligations remain valid during the term of this Agreement and 10 (ten) years after the expiration of this Agreement or early termination of this Agreement.

9. Term of validity of the Agreement and other conditions

9.1. This Agreement enters into force from the moment of its signing by the Parties and is valid until the Parties fulfill their obligations under this Agreement.

9.2. This Agreement may be prematurely terminated by any of the Parties prior to the expiration of this Agreement, provided that the Party notifies the other Party in writing 1 (one) calendar month in advance and the Parties duly fulfill all the terms of this Agreement, and is executed by the Parties signing an additional agreement to of this Agreement.

9.3. Expiry of this Agreement or early termination of this Agreement does not release the Parties from its full implementation and responsibility for its violation that occurred during the validity period of this Agreement, as well as from warranty obligations under this Agreement.

9.4. Changes and/or additions to this Agreement can be made only by agreement of the Parties and are made by the Parties signing an additional agreement to this Agreement.

9.5. Annexes and/or additional agreements to this Agreement are an integral part of this Agreement and have legal force if they are set out in writing and signed by the Parties.

9.6. This Agreement, annexes to this Agreement, additional agreements to this Agreement, as well as other documents drawn up for the implementation of this Agreement, signed and sent by means of e-mail or facsimile communication, have the same legal force as the original, provided that the originals are subsequently exchanged .

9.7. The parties, in compliance with the Law of Ukraine "On the Protection of Personal Data", give each other permission to receive, process and use personal data for the purpose of properly fulfilling the terms of this Agreement.

9.8. By signing this Agreement, the Buyer guarantees to the Supplier that it has a sufficient level of legal capacity to sign it, within the meaning of Article 44 of the Law of Ukraine "On Limited and Additional Liability Companies".

In the event that the price of the Agreement, which is the equivalent of the national currency of Ukraine - hryvnia, according to the official exchange rate of the national currency of Ukraine - hryvnia to the US dollar, established by the National Bank of Ukraine, will be more than 50 (fifty) % of the Buyer's net assets at the end of the previous quarter (significant transaction), then the Buyer, who has such an excess, is obliged to obtain consent to commit a significant transaction from the members of the limited liability company and provide the Supplier with a certified copy with a translation into Ukrainian of such consent to commit a significant transaction. The decision to grant consent to the execution of a significant transaction is made exclusively by the general meeting of the members of the limited liability company.9.10.The relations of the Parties, which are not regulated by this Agreement, are regulated by the current legislation of Ukraine.

10. DETAILS AND SIGNATURES OF THE PARTIES

PROVIDER

BUYER

«SHANDONG BISON MACHINE CO. LTD

Limited liability company «ABR Electric"

Director

Director

_____

_____