Federal State Autonomous Educational Institution for Higher Education NATIONAL RESEARCH UNIVERSITY HIGHER SCHOOL OF ECONOMICS

**Saint Petersburg School of Economics and**

**Management**

**Course project**

SWOT-analysis

JSC “Diakont”, radiation-resistant TV equipment

Field of studies 38.03.01 “Economics”; 38.03.02 “Management”

Educational Programme “International Bachelor in Business and Economics”

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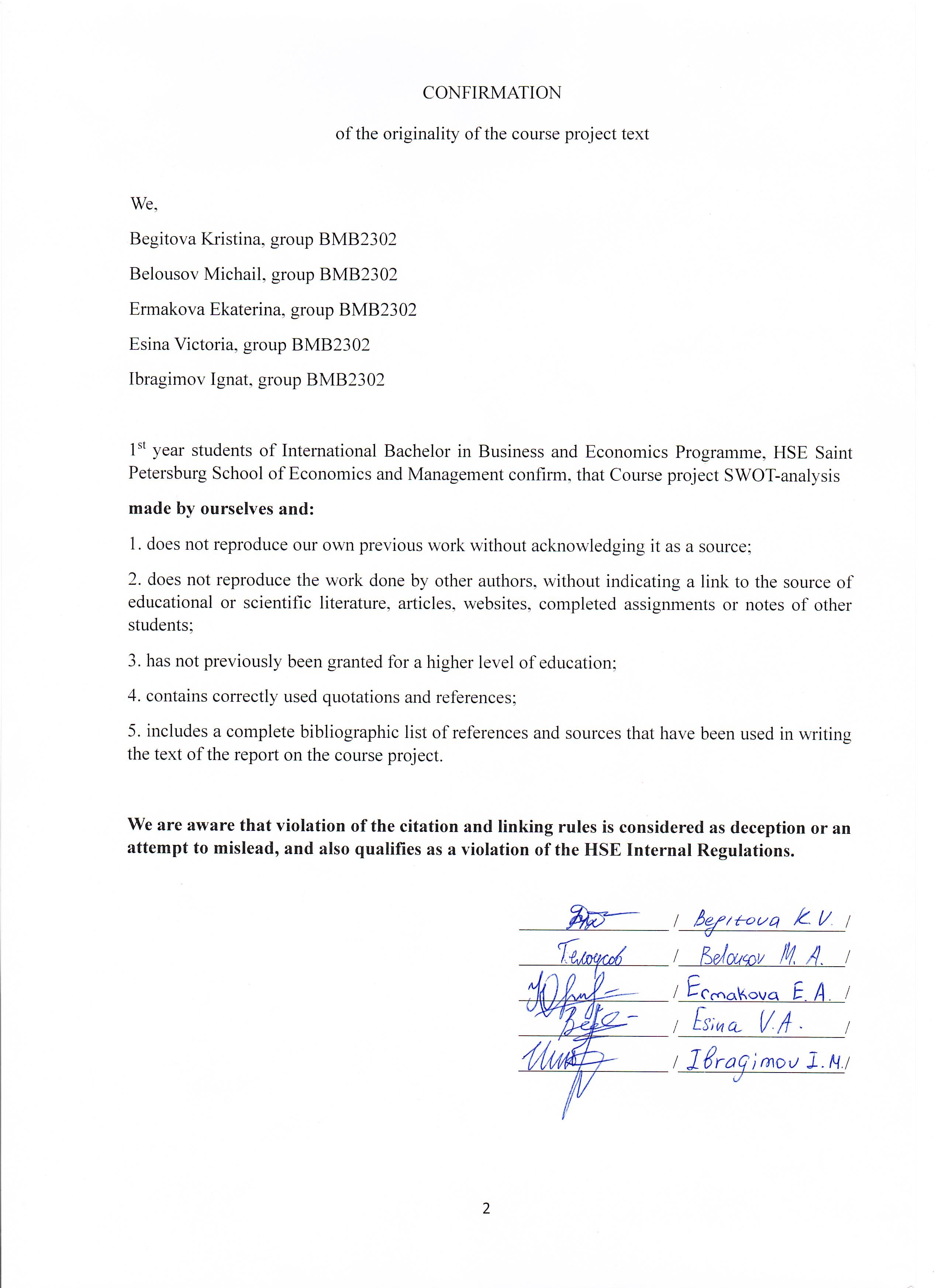
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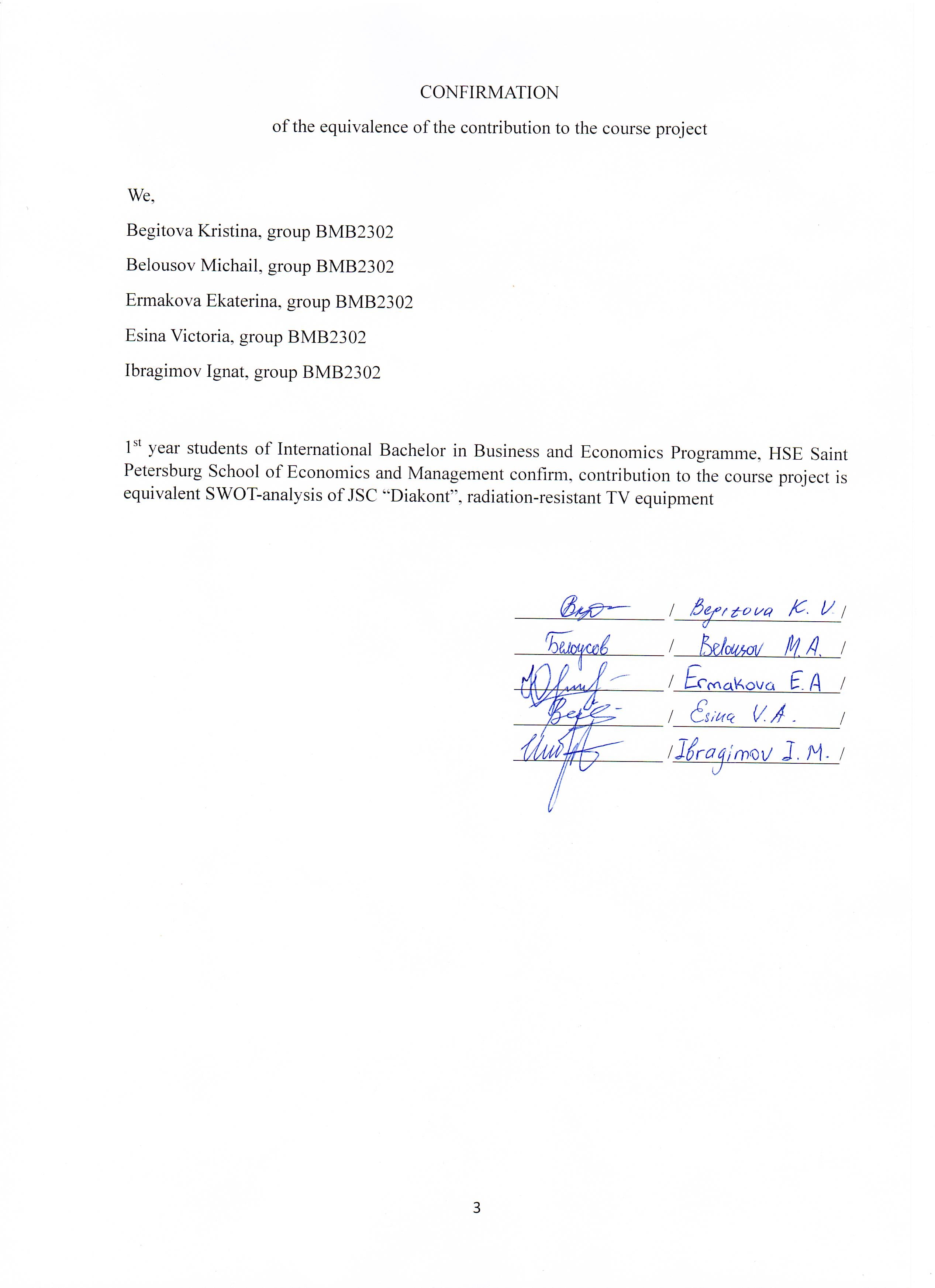
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CONTENTS

[INTRODUCTION 5](#_Toc166193513)

[Justification of the choice of the company 5](#_Toc166193514)

[Relevance of SWOT analysis for the company 5](#_Toc166193515)

[Formulation of the objectives and goals of the project 5](#_Toc166193516)

[Justification of the logic and structure of the report 6](#_Toc166193517)

[PROFILE OF JSK “DIAKONT” 7](#_Toc166193518)

[PESTEL ANALYSIS 9](#_Toc166193519)

[ANALYSIS OF PORTER’S FIVE COMPETITIVE FORCES 19](#_Toc166193520)

[KEY SUCCESS FACTORS 25](#_Toc166193521)

[PRIMARY SWOT-ANALYSIS 27](#_Toc166193522)

[STRATEGIC ALTERNATIVES OF DIAKONT 30](#_Toc166193523)

[First strategic alternative of Diakont 30](#_Toc166193524)

[The second strategic alternative of Diakont 30](#_Toc166193525)

[CONCLUSION 32](#_Toc166193526)

[LIST OF REFERENCES 33](#_Toc166193527)

## INTRODUCTION

Chat GPT-4, which is developed by OpenAl, was used in the presented course project to formulate industry requirements in the Pestel section. In addition, there were used Google and Yandex translators for more accurate translation.

# Justification of the choice of the company

Our company for SWOT-analysis: JSC «Diakont». The company is a world leader in the production of high-tech equipment, which develops unique innovative solutions to improve safety and efficiency in high-tech industries. For example, the company develops radiation-resistant TV- systems for nuclear power plants, which are the benchmark in the field of inspection and video surveillance at the enterprise. We believe that the company is attractive for analysis as a representative of a leader in its field, whose activities ensure the safe operation of enterprises.

# Relevance of SWOT analysis for the company

SWOT-analysis is an assessment of the real strategic position of the company, showing how the current strategy of the company corresponds to its internal resources and market opportunities. The market situation often changes, therefore, in order to maintain a leading position in the market, Diakont must have a clear understanding of its strengths and weaknesses, existing opportunities and threats, on the basis of which it will be able to build its behavior strategy for specific situations. Based on our SWOT-analysis, the company has this opportunity.

# Formulation of the objectives and goals of the project

1. Identify the external factors influencing the company and determine the extent of their influence.
2. Identify the internal factors influencing the competitive environment of the company and determine the degree of their influence.
3. Identify who has the power in the industry (company, buyers, suppliers, etc.)
4. Identify internal key success factors (KSF) and assess the presence of this factor in the company and its competitors.
5. Evaluate the current position of the company in comparison with its main competitors.
6. Identify the area in which the company is superior or inferior to its competitors.
7. Identify the strengths and weaknesses, opportunities and threats of the company from the external or internal environment.
8. Consider combining factors (WT, ST, WO, SO) in an extended SWOT analysis Goals:
9. Choose the strategy that will provide the greatest practical benefit in the current realities according to the Porter model.
10. Identify strategic ways to promote the company through SWOT-analysis.
11. Develop a plan (algorithm of actions) for the implementation of strategies.

# Justification of the logic and structure of the report

At the beginning, a PESTEL-analysis and analysis of Porter's five competitive forces were performed, helping to understand which external and internal factors are respectively capable of influencing the company. Next, the key success factors (KSF) are identified, showing the distinctive features of the company in the market. After collecting the information, a primary SWOT-analysis was performed, which includes an analysis of external and internal factors, distinctive features described in the previous sections, helping to identify the weaknesses and strengths of the company, as well as its opportunities and threats. At the next stage, the factors of the primary SWOT-analysis are combined into groups, from which an expanded SWOT-analysis is subsequently formed. Based on it, the company's promotion strategies are formed and an action plan is developed.

## PROFILE OF JSK “DIAKONT”

**Organizational and legal status**- Joint Stock Company (JSC).

The main activity of the organization is the production of other devices, sensors, equipment and instruments for measurement, control and testing.

**OKVED code:** 26.51.6;

**Geographical Areas of activity:** Saint-Peterburg;

**Mission of the company:**

The company strives to create the best solutions by developing and manufacturing high-tech and competitive equipment to ensure safety and increase efficiency in knowledge-intensive industries.

It is important for them to be a leader in the quality of services provided and the effectiveness of proposed solutions and developments not only in the markets of presence, but also in new markets.

The main guideline of the Diakont is active expansion and achievement of competitive advantages in the global market in order to ensure the inflow of financial resources for continuous development and investment in developments that determine the progressive transformation of the industry.

The company multiplies intellectual, technological and human capital, creates a favorable environment for the professional self-realization of employees and the maximum disclosure of their potential.

**Year of foundation:** 1990

**А brief history:**

**1990:** The company’s first order was the development and creation of a radiation-resistant television camera for monitoring reactor installations of nuclear-powered ships of the Murmansk Shipping Company.

**1998:** The company fulfilled the first major international contract with ABB TECH, Sweden.

**2005:** The development of the oil and gas industry market has begun. The first robots for diagnostics of underground pipelines of gas compressor stations are being developed.

**2011:** Entry into the international market: a representative office of Diakont Advanced Technologies was opened in California (USA).

**2012:** Opening of the basic department of “Systems and technologies of technogenic safety” at Itmo.

**2015:** Opening of production in Italy (Arezzo) – Diakont Srl.

**2021:** A plant for the production of electromechanical drives was launched in Italy (Lucignano) – the first large production complex of GC Diakont in Western Europe;

The head of the organization (a person who has the right to act on behalf of a legal entity without a power of attorney) since September 12, 2022 is CEO Aleksanin Sergey Andreevich;

**Contact information:**

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**Telephone:** +7 812 334 0081

## PESTEL ANALYSIS

Table 1. The Political factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | **Influence on the company** |
|  |
| **time** | **type** | **dynamics** | **relative importance** |  |
|  |
| Political factors | | | | | |  |
| Unstable political situation. The beginning of a Special Military Operation | N/F | - | > | VERY IMPORTANT | With the start of a Special Military Operation, countries began to introduce anti-Russian sanctions, which have a negative impact on the company’s trade with its foreign clients. For example, they had to completely look for a replacement for the German Labmuller cable, since it was banned from being imported into Russia. |  |
|  |
|  |
|  |
| Government regulation and influence | N/F | - | > | SUBSTANCIAL | The products of the Diakont company may be intended for military purposes, therefore, before sending the goods, they undergo several stages of checks from the state. As a result, the state can prohibit the trade of certain products if it poses a threat to the state. |  |
|  |
|  |
|  |
| Subsidy system | N/F | + | = | IMPORTANT | State funds can give Diakont a subsidy for the development of TV cameras, for which the company must report to the state. Thus, the company develops a new product and receives income for it. |  |
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Table 2. The Economic factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | | | **Influence on the company** |
|  |
| **time** | **type** | | **dynamics** | | **relative importance** |  |
|  |
| Economic factors | | | | | | | |  |
| High key interest rate | N | - | < | | VERY IMPORTANT | | An increase in the key rate leads to an increase in the cost of loans and an increase in the debt burden on the enterprise budget, which makes it difficult to develop a new product, since the budget is limited, and the loan will be too large. For 2024, the Central Bank's key interest rate is 16%, which is significantly more than it was last summer (7.5%). However, the impact of this factor is short-term, because the value of the key rate often changes. |  |
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|  |
| High exchange rate of foreign currenties | N/F | - | = | | IMPORTANT | | With an increase in the USD/RUB exchange rate, the purchase price increases proportionally, imported goods are more expensive. There are components in Diakont that are purchased abroad, such as LEMO connectors. Due to their rise in price and the complexity of acquisition, the cost of TV equipment increases. |  |
|  |
|  |
|  |
| High cost of raw components | N/F | - | = | | IMPORTANT | | The high cost of materials makes the cost of TV equipment also high. Part of the burden is shifted to the buyers. Because of this, many organizations cannot afford to purchase Diakont products, preferring their competitors. |  |
|  |
|  |
|  |
| High taxes | N/F | - | = | | NOT IMPORTANT | | The Diakont has a classical taxation system - This is the basic regime for entrepreneurs and companies, there are no restrictions on types of activities, income and number of employees, as in other regimes. In this case, it even becomes possible to participate in business development programs on the part of the state |  |
|  |
|  |
|  |
| Trends for high-quality products in distribution channels | N/F | + | > | | SUBSTANTIAL | | The tendency to purchase high-quality and durable equipment for nuclear power plants is increasing, since the safety of business and the population depends on it. Diakont is the country's best manufacturer of this equipment, consequently, with the advent of this trend, the number of their customers will increase. |  |
|  |
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|  |
| High consumer confidence index | N/F | + | > | | VERY IMPORTANT | | Diakont has been on the market since 1990 and has established itself in Russia as the best manufacturer of radiation-resistant TV systems. It has been cooperating for many years with large companies such as Rosatom, which choose Diakont products because they trust the quality. |  |
|  |
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|  |
| Availability of financing | N/F | + | > | | IMPORTANT | | Receiving subsidies from the state promotes the development of new products in the company, which makes the Diakont competitive in the market. For example, in 2021, the St. Petersburg Industrial Development Fund approved Diakont's application for financial support, which will be used to modernize the existing mass production of electromechanical actuators. |  |
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Table 3. The Socio-cultural factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | | | **Influence on the company** |
|  |
| **time** | **type** | **dynamics** | | | **relative importance** |  |
|  |
| Socio-cultural factors | | | | | | | |  |
| Changes in demographics | N/F | +/- | | > | IMPORTANT | | Several departments of Diakont are searching for new qualified workers, who has higher education. Employer is also interested in young employees who has innovative ideas. |  |
|  |
|  |
|  |
| Diversity and Inclusion | N/F | + | | > | VERY IMPORTANT | | This strategy can make great financial impact by division of labor, because diverse teams with engaged talents are more innovative, understand customer needs better, and drive financial results. |  |
|  |
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|  |
| Taking care of employees' health | N/F | + | | > | VERY IMPORTANT | | Diakont develops different ways to maintain employee health by giving all workers masks and gloves in the manufacturing sector. |  |
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|  |
| People's attitude towards nuclear energy | N/F | - | | > | IMPORTANT | | the population of the regions supports the development of the nuclear industry, and also notes its high importance for the socio-economic development of the region. In most station cities that are aware of the activities of nuclear power plants, the number of positive opinions about the operation of nuclear power plants is growing. |  |
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Table 4. Technological factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | **Influence on the company** |
|  |
| **time** | **type** | **dynamics** | **relative importance** |  |
|  |
| Technological factors | | | | | |  |
| Patents&licenses | N/F | + | > | VERY IMPORTANT | The company has been issuing various patents for many years of its work, which helps it to compete effectively in the domestic and international markets, releasing exclusive products in various fields of production. Patents secure the company's ownership of exclusive technologies, which also has a positive effect on the company's profits. |  |
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|  |
| Robotization and automation | F | + | = | IMPORTANT | Diakont company is developing smart robots that will be used in the assembly of high-tech equipment, in particular, for high-precision work. It will also help the company to increase the efficiency and speed of production, without requiring an increase in staff. |  |
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|  |
| Scientific discoveries, new technologies | N/F | + | > | VERY IMPORTANT | Modern design tools, confirmation of solutions by engineering calculations, the introduction of the latest production technologies and multi-level control ensure a consistently high level of product quality. Modern design support tools: The latest licensed computer-aided design systems such as SolidEdge, Altium Designer, NX, and the E3 SERIES are used at all stages of development. |  |
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|  |
| R&D expenses. | N/F | + | > | IMPORTANT | Our own R&D department develops innovative technologies and products, determines ways to modernize and further automate production |  |
|  |
|  |
|  |
| The level of technology development in a particular industry. | N/F | + | > | VERY IMPORTANT | Diakont is a modern full-cycle scientific and production enterprise, one of the world leaders in the production and sales of high-tech radiation-resistant television equipment for nuclear power plants, research institutes and fuel cycle enterprises. In the domestic market, it is a leader in the supply of television cameras for various companies, in particular, for Rosenergoatom |  |
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|  |

Table 5. Environmental factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | **Influence on the company** |
|  |
| **time** | **type** | **dynamics** | **relative importance** |  |
|  |
| Environmental factors | | | | | |  |
| Climate change | N/F | - | > | IMPORTANT | Due to the fact that Diakont cooperates with nuclear power plants, the company needs to monitor the changing climate and create products that are safe for the modern world. |  |
|  |
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|  |
| Environmental policy | N/F | +/- | > | VERY IMPORTANT | Diakont carries out systematic work to comply with the requirements of environmental legislation, using modern and environmentally efficient technologies. |  |
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|  |
| Sustainability practices | N/F | + | > | VERY IMPORTANT | Company does its production with minimal harm to the environment, and in the future strives to reduce this figure to zero. |  |
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|  |

Table 6. Legal factors of PESTEL-analysis

Compiled by the author

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **External Environment Factors** | **Characteristic of the factor influenced by** | | | | **Influence on the company** |
|  |
| **time** | **type** | **dynamics** | **relative importance** |  |
|  |
| Legal Factors | | | | | |  |
| State support programs for Diakont | S | + | > | IMPORTANT | Financial support programs from the state (for example, from the St. Petersburg Industrial Development Fund) make it possible to modernize the company's existing production, as well as create high-performance jobs. |  |
|  |
|  |
|  |
| Production sites are organized in accordance with the requirements of Industry 4.0 | N/F | + | = | IMPORTANT | It leads to improved production processes and increased efficiency due to a high level of automation and digitalization of production, ensuring data security. |  |
|  |
|  |
|  |
| The organization has 4 registered trademarks (278998, 934909, 962569, 972283) | N/F | + | = | SUBSTANTIAL | It is protecting the company's intellectual property from plagiarism and forgery, as well as increasing brand awareness. |  |
|  |
|  |
|  |
| Compliance with the requirements of environmental legislation | N/F | + | > | VERY IMPORTANT | Promotes the preservation of the environment, strengthens relations with stakeholders such as government agencies, public organizations, helps to gain a competitive advantage in the market by improving its reputation. |  |
|  |
|  |
|  |
| Payment for products from foreign companies goes through "residents" | N | - | < | IMPORTANT | It can lead to risks for both the buyer and the seller, and also leads to financial losses. |  |
|  |
|  |
|  |
| Availability of licenses for the manufacture, design, and provision of services for nuclear power plants | N/F | + | = | SUBSTANTIAL | Contributes to ensuring the legality, quality and safety of the company's activities, as well as the development of its business and strengthening its position in the market. |  |
|  |
|  |
|  |

With the start of a Special Military Operation, countries began to introduce anti-Russian sanctions, which have a negative impact on the company’s trade with its foreign clients. For example, they had to completely look for a replacement for the German Labmuller cable, since it was banned from being imported into Russia. Also, the Diakont had had problems with LEMO connectors, but the company has found the solution by getting these connectors from parallel import.

On October 1, 2021, Diakont and the non-profit unitary organization "St. Petersburg Industry Development Fund" signed documents on financial support for the enterprise. Diakont's application for the program "Digitalization Projects for industrial enterprises" was approved by the Supervisory Board of the Foundation. Additional funds contributed to the modernization of the mass production of electromechanical actuators: the company improved the software development system for controlling the main equipment. This measure contributed to the development of the company, as well as reducing the negative impact of economic factors, for example, High key interest rate, counting the attraction of additional funds.

For employees who have worked in Diakont for a year, company provides a corporate benefit that allows staff to receive medical care in private and public clinics with full or partial payment for services at the expense of the employer.

In 2023, Diakont created a smart robot, which must be implemented in production. Still robot is under development because engineers must be sure in efficiency of its work. However, engineers exactly know that smart robots with an artificial intelligence will help to improve effectiveness and speed of production high-tech goods.

Diakont is competitive on the market because the production is eco-friendly and it does not harm environment. In fact, production of radiation-resistant TV equipment requires a certain number of machines and computers that are absolutely safe for nature.

On July 17, 2007, Diakont received a license from Rostechnadzor for the manufacture, design and provision of services for nuclear power plants (license number DE-00-007635). Moreover, all stages of the production process — from design and manufacture to implementation — are carried out in strict accordance with the ISO 9001 quality system standards. Based on it, the company has a strong customer focus, active participation and support from senior management, a process-oriented approach and a commitment to continuous improvement.

PESTEL-analysis as a strategic management tool is used to analyze the macro environment of the company. In this process, key environmental factors are identified and analyzed, their organization and monitoring take place. The obtained results of the PESTEL-analysis serve as the basis for conducting a SWOT-analysis: The identified factors are classified either as opportunities or threats. During our analysis, we found that most of the factors in all 6 areas have a strong impact on the company (important and very important). Therefore, further detailed analysis of these factors will be made in the section SWOT-analysis.

## ANALYSIS OF PORTER’S FIVE COMPETITIVE FORCES

Table 7. Industry competitors

Compiled by the author

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation parameter** | **Evaluation** | | |
|  |
| **3** | **2** | **1** |  |
|  |
| Number of players | High level of market saturation | The average level of market saturation | **A small number of players** |  |
|  |
|  |
|  |
| Market growth rate | **Stagnation or decrease in market** | Slowing down, but growing | High |  |
|  |
|  |
|  |
| Product differentiation level | Companies sell standardized goods | **The product is standardized according to its key properties, but differs in additional advantages** | The companies' products differ significantly from each other |  |
|  |
|  |
|  |
| Restriction on price increases | Fierce price competition in the market, there are no opportunities B | **There is an opportunity to increase prices only as part of covering the cost increase** | There is always an opportunity to increase the price to cover the cost increase and increase |  |
|  |
|  |
|  |

Table 8. Threat of new entrants

Compiled by the author

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation parameter** | **Evaluation** | | |
|  |
| **3** | **2** | **1** |  |
|  |
| Barriers to entry | **High barriers** | Average | Easy to enter |  |
|  |
|  |
|  |
| Initial investment | High level of investment | **Significant level of investment** | Insignificant level of investment |  |
|  |
|  |
|  |
| Competitive advantages of incumbent market players | High level of strong competitors in the industry | **A few strong competitors in the industry** | No any strong competitors in the industry |  |
|  |
|  |
|  |
| The ease of purchasing component materials | **Very difficult and expensive** | Require significant resourses | Easy to purchase |  |
|  |
|  |
|  |

Table 9. Bargaining power of buyers

Compiled by the author

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation parameter** | **Evaluation** | | |
|  |
| **3** | **2** | **1** |  |
|  |
| **Market coverage (about customers)** | Covers all consumers markets (B2B, B2G, B2C) | **Works with the large companies and the state (B2B and B2G)** | Covers one type of markets (B2B/B2C/B2G) |  |
|  |
|  |
|  |
| **The share of large buyers** | **Most customers** | Less than a half of the orders | A small part of orders |  |
|  |
|  |
|  |
| **Personal approach to the customer** | **Full work on the client's terms (possibility)** | Possible amendments from the customer's side | Serial production |  |
|  |
|  |
|  |
| **Customer awareness of the product** | The opportunity to know all about the product yourself | **Enough knowledge to communicate** | Little information about the products |  |
|  |
|  |
|  |

Table 10. Bargaining power of suppliers

Compiled by the author

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation parameter** | **Evaluation** | | |
|  |
| **3** | **2** | **1** |  |
|  |
| Number of suppliers | Almost no choice of suppliers | **Limited choice of suppliers** | A wide range of suppliers |  |
|  |
|  |
|  |
| The cost of replacing one supplier with another | **High costs of replacing suppliers** | Significant costs of replacing suppliers | Minor costs of replacing suppliers |  |
|  |
|  |
|  |
| The uniqueness of the supplier's products | **High degree of product uniqueness** | A significant degree of product uniqueness | Low degree of product uniqueness |  |
|  |
|  |
|  |
| Size of suppliers and provider focus | The small size of the supplier companies and the low degree of focus on trade relations | The average size of supplier companies and the average degree of priority in trade relations | **The large size of the supplier companies and the high degree of focus on trade relations** |  |
|  |
|  |
|  |

Table 11. Threat of substitutes

Compiled by the author

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation parameter** | **Evaluation** | | |
|  |
| **3** | **2** | **1** |  |
|  |
| **Market coverage** | Leader in production on the world market | **High market coverage and absolute leader in the country** | Significant market coverage in the country |  |
|  |
|  |
|  |
| **Adaptability to external factors** | **Sustainable flexibility to changes in the market** | Stable adaption to conditions with some restrictions | Low level of adaptability |  |
|  |
|  |
|  |
| **Product development** | **Constant production of unique products** | Low level of development with rare improvements | Lack of development |  |
|  |
|  |
|  |
| **Technology development** | Continuous use of new technologies | **Continuous use of new technologies with some deviations** | Poor use of new technologies |  |
|  |
|  |
|  |

Table 12. Total

Compiled by the author

|  |  |  |
| --- | --- | --- |
| **Competitive force** | **Degree of influence** | **Description of the competitive force's influence** |
|  |
|  |
|  |
| Threats of substitute | 10 | Diakont is a leader in the production of radiation-resistant TV equipment in Russia (90%), and also occupies a high position on the world stage (35-40% in the USA and 63% in China). The company responds to sanctions with dignity, for example, using parallel imports. Diakont develops unique innovative solutions with the participation of foreign partners. The company introduces new technologies into its production in order to minimize the harmful impact on the environment, as well as increase the efficiency of employees and the enterprise. However, equipment production takes 10-12 months, while competitors take 3-6 months. Thus, the threat of substitutes in the company is quite low. |  |
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| Bargaining power of suppliers | 9 | According to the regulations, the Diakont must have a primary and alternative supplier, however, due to the exclusivity of the equipment, it is not always possible to comply with these rules, therefore, when working with some equipment, there is only one single supplier. Because of this, although there is a wide selection of suppliers on the market, Diakont cannot work with everyone. This significantly reduces the choice of suppliers. For example, the equipment is LEMO connectors, the rejection of which will lead to the loss of the uniqueness of the Diakont product. This is also an example of the high degree of uniqueness of products from suppliers. The cost of changing suppliers is quite high in terms of time and money. For example, it took Diakont 4 months to replace the German Labmuller cable, resources are spent on searching for an analog, checking components, checking the final product, etc. It should be borne in mind that the Diakont equipment is manufactured for an average of 9 months. The size of the supplier companies is quite large (For example, LEMO), so there are no situations in which a supplier's company can offer fewer goods than the existing demand value for them. |  |
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| Threat of new entrants | 10 | There are several threats for new entrants in the industry. First, technological barriers require specialized knowledge and skills in the sphere and significant investments in development and production facilities are needed. Moreover, it is necessary to obtain a license and certificate for the provision of services, all equipment must meet the technical requirements of radiation-resistant systems. There is difficulty in purchasing materials and components. Lastly, there are strong competitors in this field (that is why continuous product development is required). |  |
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| Bargaining power of buyers | 10 | The Diakont company develops unique innovative solutions in high-tech industries, therefore it has a narrow circle of consumers. The company receives 65% of all orders from the state, the rest mostly come from large companies, including foreign ones, thus the company covers the B2B and B2G markets. The company performs most of the products according to the customer's order, that is, production takes place exactly according to the customer's requests, so the company applies a personal approach to everyone. Since there are not so many competitors in the domestic market, it will be difficult for the consumer to find the product they need, which will be made specifically for him, except for the Diakont company. Customers who work in this field and who know enough information about the product they need, it will not be difficult to understand the details of technological products, but the Diakont company itself will accurately inform consumers about all the details. |  |
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| Industry competitors | 8 | There are a few competitors in the market. Some big companies, exactly. Competitors have advantages like regulating prices on their products a bit or negotiate an average price. The growth rate of the industry is low. Market players have unique competitive advantages. |  |
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**Industry competitors:** Nowadays, there are few companies which product radiation- resistant TV equipment in the world. Diakont has about 7 competitors on the market, they are АО "НИИПТ "РАСТР", АО "НИИ Телевидения", ООО "Вест-Инжиниринг", AHLBERG, MIRION, Remote Ocean Systems and DEKRA Visatec. Such a small number of competitors in the market allows companies to change certain price indicators of their products through negotiations between companies.

**Threat of new entrants:** There are a minimal number of competitors in the market, so threats from new participants are low. The fact that there is only specialized production on the market is the reason of hard entry of new companies. There are several threats for new entrants in the industry. First, technological barriers require specialized knowledge and skills in the sphere and significant investments in development and production facilities are needed. Moreover, it is necessary to obtain a license and certificate for the provision of services, all equipment must meet the technical requirements of radiation-resistant systems. There is difficulty in purchasing materials and components. Lastly, there are strong competitors in this field such as AHLBERG, MIRION, Remote Ocean Systems, etc.

**Bargaining power of buyers:** The high score of this force means that companies in the sphere of radiation-resistant TV equipment can supply their products to very small number of buyers which all are needed individual approach. Since the products of the Diakont company are high-tech and narrowly focused, information about the equipment in open sources may not be enough, including on the company's website. Consequently, customers have to resort to additional consultations from the Diakont managers, which can take quite a lot of time during the transaction process.

**Bargaining power of suppliers:** This force is significant, because suppliers can provide 50% of success of the company due to some unique materials that are in demand among popular nuclear stations. So, companies like Diakont are doing their best to have quality suppliers.

**Threat of substitutes:** Diakont is very strong in terms of substitution, because it has leading positions in Russian market and one of the best abroad. Company also products details in a unique way so any substitutions become very unlikely.

The best strategy for Diakont is to create a product that is different from competitors’ products. Diakont should produce TV cameras that provide increased durability, and they should also reduce production lead times, because this factor is very critical on the market of radiation- resistant TV equipment.

## KEY SUCCESS FACTORS

Table 13. Key Success Factors

Compiled by the author

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | Degree of the factor | | | | |
| KSF | What client’s need do we try to close? | Diakont | АО "НИИ Телевидения" | ООО "Вест-Инжиниринг" | Ahlberg | Mirion |
| Unique product | Long-term use TV cameras for nuclear power plants | +++ | ++ | ++ | +++ | +++ |
| Sustainable development | Use of advanced technologies, environmental protection and social responsibility | +++ | + | +++ | +++ | +++ |
| Completing an assigned task | Fullfilling client's order in a short time | ++ | + | + | +++ | +++ |
| Resistance to changing conditions | Maintaining a leading position in the market, taking into account the changing market situation (for example, the imposition of sanctions) | ++ | + | + | +++ | +++ |

According to the key success factors, Diakont creates unique products on the Russian market and has high competition in the global market. Regarding sustainable development, Diakont, like Ahlberg, Mirion and West-Engineering, uses new equipment and technology to improve safety and efficiency, as well as prioritizing the environment. It is worth noting that nuclear energy is one of the most environmentally friendly forms of energy production, so Diakont does not pollute the environment on a large scale. In terms of the time, it takes to complete a customer's order, Diakont is 2-4 times behind its competitors abroad, while in Russia the company occupies a leading position in the manufacture of TV-cameras. Due to the sanctions, Russian companies began to give way to companies in other countries, as there was a ban on the import of certain equipment from abroad. But Diakont managed to find a decent replacement and other ways to get the equipment. For instance, the Diakont uses a parallel import to get the LEMO connectors.

Regarding uniqueness of the products, almost every order of the Diakont company is unique but the company does not disclose such details due to commercial secrets.

## PRIMARY SWOT-ANALYSIS

Table 14. Primary SWOT-analysis matrix

Compiled by the author

|  |  |
| --- | --- |
| **STRENGTHS** | **WEAKNESSES** |
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| **S1:** The company is among the leaders in the field of radiation-resistant TV equipment **S2:** Innovative and unique technologies S3: Availability of service centers **S4:** Customer orientation (focus on individual customer needs) **S5:** More cameras functionality compared to competitors **S6:** Strong customer base **S7:** Global presence of the company **S8:** Multilevel quality control | **W1:** Long production time compared to competitors **W2:** High cost of TV-cameras, which is why not all nuclear power plants buy Diakont products |  |
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| **OPPORTUNITIES** | **THREATS** |  |
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| **O1:** Increased demand for high-tech products due to rapid digitalization **O2:** The emergence of new production technologies **O3:** The growth of new geographical markets and new consumer segments **O4:** Weakening of the positions of competing firms due to the unstable political situation | **T1:** High exchange rate of foreign currencies  **T2:** Unstable political situation and government regulation **T3:** Purchase of component equipment in other countries and through residents **T4:** Strong competitors in the global market |  |
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Based on the analysis of primary SWOT of Diakont, we can conclude that the company has a strong foundation in radiation-resistant TV equipment, innovative technologies, a customer- centric approach, and multilevel quality control. However, challenges such as long production times, high costs, and external threats like currency exchange rates and political instability need to be addressed. The company has opportunities to capitalize on increasing demand for high-tech products, new production technologies, and emerging markets. By using its strengths and addressing weaknesses, the company can navigate threats and seize opportunities to sustain and enhance its competitive position in the global market.

EXTENDED SWOT-ANALYSIS

Table 15. Extended SWOT-analysis matrix

Compiled by the author

|  |  |  |
| --- | --- | --- |
|  | **S1:** The company is among the leaders in the field of radiation-resistant TV equipment **S2:** Innovative and unique technologies **S3:** Availability of service centers **S4:** Customer orientation (focus on individual customer needs) **S5:** More cameras functionality compared to competitors **S6:** Strong customer base **S7:** Global presence of the company **S8:** Multilevel quality control | **W1:** Long production time compared to competitors **W2:** High cost of TV-cameras, which is why not all nuclear power plants buy Diakont products |
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| **O1:** Increased demand for high-tech products due to rapid digitalization **O2:** The emergence of new production technologies **O3:** The growth of new geographical markets and new consumer segments **O4:** Weakening of the positions of competing firms due to the unstable political situation | **SO1:** The capture of a significant part of the market due to more technological equipment and the weakening of competitive companies (S1, S2, S5, O4) **SO2:** The company's expansion into new market segments, including abroad, due to advanced technologies and increased demand (S2, S7, O1, O2, O3) **SO3:** Increase cooperation and supply with regular customers by displacing competitors and new products (S3, S4, S5, S6, S8, O1, O4) | **WO1:** Produce the newest equipment that is not discovered in other companies, so buyers become ready to wait 8-12 months and won’t search for new supplier (W1, O1)  **WO2:** Introduce new way of production that won’t be suffered from different sanctions (W3, O2)  **WO3:** Because of difficult situation in competitors’ companies, it helps to deal with problems of production military equipment that is in demand either in Russia or abroad (W2, O3, O4) |  |
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| **T1:** High exchange rate of foreign currencies  **T2:** Unstable political situation and government regulation **T3:** Purchase of component equipment in other countries and through residents **T4:** Strong competitors in the global market | **ST1:** Continue to develop in the Russian market by increasing the customer base in Russia (S1, S6, T2, T4) **ST2:** Expand the customer base in countries that are in Partnership with Russia (S1, S5, S7, T1) **ST3:** To open a branch of the company in a country that is in partnership with Russia (S7, T3) | **WT1:** Searching for new partners and clients in the Commonwealth countries (W2, T1) **WT2:** Introduction new technologies that will reduce production time to outperform competitors (W1, T4) **WT3:** Business development programs from the state; obtaining subsidies and implementing the projects (W2, T2) |  |
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As we can see in the extended SWOT matrix, there are a lot of possible strategic alternatives and directions for the development of Diakont. The company can focus on market capture, international expansion, innovation, and strategic partnerships. The key will be to align these strategies with the company's strengths and opportunities to maximize success.

## STRATEGIC ALTERNATIVES OF DIAKONT

# First strategic alternative of Diakont

ST alternative: Expand the customer base in countries that are in Partnership with Russia (S1, S5, S7, T1).

**S1:** The company is among the leaders in the field of radiation-resistant TV equipment;

**S5:** More cameras functionality compared to competitors;

**S7:** Global presence of the company;

**T1:** High exchange rate of foreign currencies.

This alternative is valuable for the company, since it simultaneously allows to diminish the degree of negative influence of such external threat as the high exchange rate of foreign currencies, as well as to take advantage of the existing strengths in being among the leaders in the industry, having better camera functionality and having connections abroad. By increasing the number of clients in nations that collaborate with Russia, the company may obtain reliable customers who will bring it a stable income.

This strategy can be implemented using the following algorithm:

1. To identify potential target countries that have partnerships with Russia and have a demand for radiation-resistant cameras;
2. Analyze customer preferences, regulatory requirements, and competitors in the identified countries;
3. Identify potential local partners such as distributors or technology integrators who have a strong presence and network in the target countries;
4. Develop a targeted marketing strategy to raise awareness about the Diakont products among potential customers in the target countries.

For implementing this strategic alternative, the company needs to analyze competitors in order to find areas in which customers may be not satisfied and make a logistics plan for the transportation of products in identified areas. Moreover, the allocation of funds for service centers in new countries may be required. This strategy may increase awareness of the company and attract new customers not only for the radiation-resistant cameras, but for other products of Diakont too.

# The second strategic alternative of Diakont

WT alternative: Business development programs from the state; obtaining subsidies and implementing the projects (W2, T2).

**W2:** High cost of TV-cameras, which is why not all nuclear power plants buy Diakont products;

**T2:** Unstable political situation and government regulation.

This strategic alternative is beneficial for Diakont sustainable development due to the fact that it can provide valuable resources, opportunities, and support for the company to thrive in a competitive market, foster innovation, expand globally, and achieve growth. Subsidies and grants from government programs can enable the company to invest more in research and development. Financial support can help to offset such weakness as the high costs associated with production and materials. Moreover, it leads to decreased impact of the threat such as unstable political environment.

Implementation algorithm:

1. Develop an idea of new technologies implementation or make up the project about the creation of new products for radiation enterprises that can be useful for the development of the industry;
2. Research and identify relevant state programs;
3. Define clear objectives and goals for executing state programs and obtaining subsidies to support the production and growth of radiation-resistant cameras;
4. Build relationships with program managers, officials, and stakeholders to seek guidance, advice, and support in accessing funding opportunities;
5. Implement projects and monitor progress.

By following the strategy of obtaining subsidies and development programs from the government Diakont can maximize opportunities for growth, innovation, market expansion, and long-term success. Required resources for this strategic alternative include funding to cover expenses associated with accessing state programs, advanced technology, and human resources.

## CONCLUSION

As a result of the course project, we have analyzed the Diakont company, achieved the goals and completed objectives set for ourselves. Our team has built the PESTEL, Porter’s Five Forces, Key Success Factors, Primary and Extended SWOT tables and wrote logical conclusions on each topic. During the analysis process we identified the key factors influencing the company's operations and competitive position in the market. Moreover, we provided possible directions for the company's development and outlined the algorithm for their implementation.

Overall, our course project is a complete study of the Diakont company and its place in business environment. The analysis has highlighted the importance of continuous monitoring and adaptation to changes for Diakont to remain competitive and achieve sustainable growth. By using its strengths and addressing its weaknesses, company can capitalize on opportunities and reduce threats to achieve long-term success in the radiation-resistant camera industry.

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