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Challenges to the sustainable development of the construction market

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Abstract – **Sustainable development is a long-term social process aimed at realizing economic, environmental and socio-cultural goals. Awareness and understanding of the problem is particularly important for setting priorities and developing policies that support change and development in the economy as a whole, in each individual market and each individual company. The purpose of the research is to analyze the challenges (existing obstacles and opportunities) to the sustainable development of the construction market, which is usually identified as the first sector facing serious problems and requiring special attention when implementing the idea.**

Keywords – challenges, construction market, obstacles and opportunities, sustainable development.

1. INTRODUCTION

The sustainable development of any market is a function of the active participation of all stakeholders (government, non-governmental organizations, investors, companies, civil society and consumers) who perceive the idea as a shared responsibility and all of them take action to realize of the set goals and objectives. This requires a comprehensive view of the business environment, taking into account social, economic and environmental aspects of the activity, but also traditional company goals - satisfying the wishes of customers and expanding market positions. All aspects must be effectively integrated into strategy, policies, economic priorities and managed as a single system.

Initially, the sustainable development of the construction market (Sustainable Construction) was defined as the need to create and maintain a healthy building environment based on the principles of efficient use of resources and ecology [1]. It is later seen as a holistic process that aims to restore and maintain harmony between the natural and built environment, and to create settlements that affirm human dignity and promote economic justice [2]. Therefore, it includes four aspects: energy, ecological, economic and emotional and develops on the following seven principles: 1) reduction of used resources, 2) reuse of resources, 3) use of recycled materials, 4) protection of the natural environment, 5) exclusion of toxic materials, 6) guaranteed low maintenance costs of construction sites, and 7) emphasis on quality. The stated principles are relevant to all stages of the life cycle of construction sites – design, construction, maintenance (operation, reconstruction) and removal (demolition). They are also applicable to the resources required for construction -

terrain (land), materials, water, energy and ecosystem, and are also leading in the management of construction processes, which are based on total quality management.

The sustainable development of the construction market must respond to all potential challenges and at the same time offer solutions that satisfy the interests and needs of all stakeholders involved in construction projects and construction phases [3]. This concept increasingly significantly affects and requires a radical change in the strategic behavior, organization and management of the construction activity. There are a number of challenges - obstacles/barriers, but also enough opportunities/incentives to turn the sustainable development of the market into a dominant trend. This determines the purpose of the research: 1) identification of obstacles to sustainable development of the construction market, 2) analysis of opportunities for sustainable development of the market.

2. RESEARCH

The construction market is the object of special attention when implementing the idea of sustainable development, with the emphasis being placed on renewal, decarbonization of the construction industry, introduction of digital information systems throughout the life cycle of buildings and construction facilities [4].

It is an indisputable fact that construction is an activity with a high resource intensity, related to the use of the scarcest resource - the Earth, as well as building materials, energy and water, and has a large share in the release of harmful emissions during the operation of buildings [5]. The volume of waste from construction and demolition of buildings is one of the largest among different types of waste (in Europe, about 30-40% of all total solid waste). Valuable materials are not always located and collected. Many can be recycled or reused, but the frequency of reuse and recycling varies greatly from country to country.

Construction is a structuring industry in any economy that influences the overall economic development and also has a strong social effect. The final construction product (buildings and facilities) with its characteristics must ensure the desired quality of life, comfort in all its aspects (visual, thermal, acoustic, healthy microclimate of the premises inhabited by people). Built construction facilities and infrastructure determine the degree of freedom and flexibility of society.

There are a number of specifics of the construction market - specifics of the construction product (immovability, individuality, durability, high resource intensity, etc.), of the construction process (the complex relationships of the various entities that participate in it), of the various market segments (building (residential and non-residential) and civil construction market), the influence of various subjective and objective factors that generate problems and increase its unsustainability. Each construction product is different in terms of design, construction, use, maintenance, management and demolition, and the result of the activities of a wide range of professionals and stakeholders who have different interests and skills. All of the above necessitates the application of good practices and specific actions to ensure flexibility and adaptability in dynamic conditions [6]. There are a number of obstacles/barriers, but also enough opportunities/incentives to turn the sustainable development of the market and the company into a dominant trend.

In general, obstacles/barriers are defined as a rule, law or policy that makes it difficult to achieve a given goal and/or requires additional costs. Consequently, they may discourage any company's decision to implement a particular concept, technology, innovation or improve a particular practice [7]. The opportunities for sustainable development of a given market are mainly associated with internal company resources, competencies, their

reconfiguration, effective management, with constant consideration of the dynamics of the external environment. The identification of obstacles and opportunities is an important condition and factor for making informed decisions by all stakeholders related to the successful integration of sustainable development in the construction market. The difficult question facing every management team is to find that optimal combination of actions and decisions that supports the realization of strategic goals and achieves synchronization of the interests of the company, consumers and society as a whole.

The empirical research was conducted on the basis of a developed and approved methodology for researching the challenges to the sustainable development of the construction market, and in particular identifying the existing obstacles/barriers and opportunities, under restrictive conditions that take into account the specifics of construction as a business, product, process , organization and management.

The analysis is based and developed on a database of NSI [8], KSB [9], EC of the EU [10,11,12], Eurostat [13] and Construction Industry Development Board (CIDB) [14]. In addition, the study includes 25 companies selected on a random basis. Information from an online survey was analyzed based on the principle - one respondent (senior manager) - one company, assuming that he has full information and knowledge about the company he leads.

The selected companies have been working for more than 5 years in different segments of the construction market and have different specialization, different history, different territorial localization, different business model, which allows to make generalizations with the necessary objectivity. An equal number of small, medium and large companies were studied, which have different resources and competences related to production, organization and management, have different market positioning and different orientation towards sustainable development.

The research uses a method based on data collection and processing in an open and standardized way. All the listed sources are suitable and acceptable for assessing obstacles/barriers and opportunities for sustainable development of the construction market [15].

The surveyed managers are first asked to define and describe in more detail the types of barriers (divided into five groups) - legal, technological, economic/financial, social and cultural, environmental - that hinder the sustainable development of the construction market (Appendix 1).

To outline opportunities for sustainable development in the construction market, managers are asked to assess the role and importance of stakeholder support, reconfiguration of company resources, the role of digitization, learning and knowledge transfer (Appendix 2).

3. RESULTS AND DISCUSSIONS

3.1. Obstacles/Barriers to sustainable development of the construction market

The study of the problem allows the following conclusions and generalizations to be made (Appendix 1):

First of all, the surveyed managers put the legal barriers [16]. The absence of an accepted uniform standard, developed adequate legal norms, guides and instructions for work on design, construction and maintenance of sustainable construction sites does not allow effective cooperation of all participants in the vertical chain of construction activities

and leads to demotivation of the participants in the process - investor, owner, user, designer, builder, site manager, etc.

There is a lack of a well-defined set of sustainable construction practices that can be used in projects. Information about the procedures related to the inclusion of environmental, economic, social problems in construction is limited and formally structured. When implementing the principles of sustainable construction, an integrated approach and control is necessary, but usually the emphasis is on individual aspects related to reducing the negative effects of construction activities on the environment and the quality of the built objects.

A general characteristic of the construction market is the presence of too many, mostly small companies with relatively limited market, financial and innovation opportunities, which determines relatively high technological and economic/financial barriers. The distribution and use of scarce resources is practically carried out by the market - private individuals, managers, who in their behavior are guided mainly by personal interest and the main goal is the realization of a higher profit for the company and the shareholders. Usually, social and environmental issues are subordinated to this primary objective, which limits the ability for their effective analysis and evaluation. Most often, their solution is a function of legislative requirements, pressure from customers, competing companies and society as a whole, which enables the given firm to maintain its reputation.

The construction market is inefficient because participants tend to work in the short term and are boundedly rational in using accumulated knowledge, innovation and experience in their practice. In addition, it is characterized by a low level of inter-firm connections, which means that the same team rarely works together on more than one project. In practice, this makes it difficult to implement projects and objects that meet the requirements of sustainable construction and leads to fragmentation of responsibility. These problems are particularly visible in the inefficiently built vertical connections and relationships between the participating firms. Therefore, the construction market needs to improve the level of communication, develop partnership, whether formally through arrangements (such as Public Private Partnership (PPP), building strategic alliances, construction clusters) or simply achieved through informal relations.

The problems facing sustainable construction are also related to financial problems - the larger amount of investments and the higher final price. Managers are also faced with a number of difficulties in: 1) cost estimation at each stage of the life cycle of the construction product, 2) separation of capital costs from those for maintenance (operation) of the site, 3) analysis and comparative assessment of higher initial costs with lower costs throughout the life cycle, 4) price analysis of sustainable materials, 5) certification costs, 6) assessment of the return on investment in technologies that provide sustainability.

There are also social, cultural and environmental barriers - lack of awareness, knowledge and understanding of the environment and the negative impact on it, consumer culture in the modern consumer society (embedded linear thinking - waste is inevitable, etc.), misunderstanding of the problem - sustainable development (usually reduced to an environmental problem, and in the construction market to energy efficiency of buildings).

The result is not particularly strong interest from investors (according to a survey, only 32% of clients are interested in sustainable construction), as well as still limited learning and knowledge about sustainable development, sustainable construction, due to the inherent conservatism in the education of architects and civil engineers, demotivation of teachers, due to inadequate funding of research in this direction [17].

As a discipline, the sustainable development of construction has been developing since the end of the 80s of the 20th century and is quite logically related to the ever-

increasing problems of the environment and the impact of construction on them. However, it has not yet taken its rightful place in the curricula of students (architects and civil engineers). As stated, the principles, standards and norms of sustainability have not been fully developed, the projects and realized objects that meet these standards are still rare, and as a result - there is no mass application of these principles in the construction market.

3.2. Opportunities for sustainable development of the construction market

The sustainable development of the construction market affects all aspects of the activity and requires a fundamental rethinking of the role and function of resources and company competencies, evaluation of development alternatives, determination of ownership and offering value to customers, which in practice means the formation of a new thinking and model of behavior that is not limited to the issue of resource recycling and the use of renewable energy. The transformation process is difficult, complex, multifaceted and requires a significant change in strategic behavior and company decisions (Appendix 2).

The main question is: what opportunities do managers find when they make decisions and take action to adopt, adapt or expand the transition to sustainable development?

First, incentives are a function of the valuation obtained as a result of comparing the expected long-term benefits with the expected costs. However, it is difficult to determine at the outset to what extent sustainable solutions will have a positive, negative or neutral effect on the realization of company goals. However, success requires turning the idea of sustainable development into an inseparable part of the thinking and culture of the company, re-evaluating the mission, vision and strategy. In other words, the main driver is the culture, personal characteristics, understanding value system of owners and senior management team, driven by the desire to maintain and enhance the company's reputation in society.

Secondly, the goal of every company is to preserve and improve market positions in the long and short term. The realization of this task is the result of its ability to be flexible and adaptable to changes under new dynamic conditions.

Very often, company activity, problems, market failure become the main motive for the need to change, break with the old methods and approaches to work and search for new ways of development, and this today is the alternative - sustainable development. The change can start with simply following the accepted standards, norms of ecological production to cover certain criteria, which also allows comparison with competing companies. At the next stage, the company's activity subject to these requirements can be extended to other companies it works with, to suppliers, distributors, and to enforce their application in their activities.

Improving and maintaining market advantage is a key motivation for sustainable company development, which requires a transition from simple compliance with state requirements (defensive positions) to a complete transformation of its behavior.

The conclusion that emerges is that there is no single motive for the company's orientation towards sustainable development, but also that each company has its own motivation, a function of its specific characteristics, history, development, value system, culture and every motivation develops and enriches over time. Perhaps the common thing for all companies is that this relatively risky, difficult process with unknown results always starts "from the top down", changes, develops under the influence of the dynamics of external and internal factors and becomes a mandatory part of the company strategy.

A particularly strong incentive for sustainable market development is the analysis and assessment of the influence of external factors (relationships with stakeholders, environmental and social regulatory standards, changes in demand, technology, market structure, competitive strategies), as well as the analysis and assessment of internal factors – skills for knowledge

integration, coordination, synchronization of business activities in order to change and reconfigure operational competencies and company resources.

The challenges today require the management team to include in its activity all the forces that directly and indirectly affect the company - supply networks, allies, partners and customers, and to take into account all effects, reactions and impacts of its activity, operations, used resources and competencies. The dynamic environment creates opportunities for sustainable development of the market and the company based on building and improving relationships with stakeholders. This is a factor for creating and realizing additional value (economic, social, environmental) and ultimately improving reputation, image and building competitive advantages. In this regard, a particularly important factor for success is the commitment and loyalty of employees. A firm's ability to adapt quickly to a dynamic environment is a function of proper selection, training, development, incentives and motivation, integration and coordination of people, capabilities, resources and relationships.

Opportunities for sustainable development of the construction market are also associated with good knowledge of customer characteristics, their perception of the new, the level of education and income, which is an important factor in the choice of products for consumption. Such users take into account the positions, the place of the company in terms of ecology, pollution, environmental protection, social conflicts, attitude, incentives for employees, image in society. In a long period, the company's ability to inform, persuade, change attitudes and educate, educate customers are the factors that can ensure a stable, positive financial and strategic result.

The next challenge for any company oriented towards sustainable development is the implementation of green and digital transformations.

The realization of the green transition in any market is related to the creation of a product, the result of sustainable production, aimed at sustainable consumption, which in its entirety does not cause adverse climate changes and does not threaten the viability of natural and social systems [18]. This also includes the process of developing additional product features, additional service, company reputation, etc., or anything that creates convenience for the customer. For this purpose, it is necessary that the entire production activity of the company is subordinated to the stated principles of sustainable construction: reduction of used resources, reuse of resources, use of recycled materials, etc. In other words, a fundamental rethinking of the role and function of resources, the way and opportunities for their repeated use is needed, which in practice means the formation of a new way of thinking.

It is not easy to create products that are durable, allow reuse and recycling. The realization of this task requires a high degree of knowledge, competences and interaction between all participants in the given production process. Investing in people, skills, knowledge and learning is an important component for realizing the transition and a factor in mobilizing the private sector, stakeholders, to upskill and reskill the workforce. The company's ability to learn and assimilate knowledge, integrate existing, accumulated internal knowledge with external knowledge, use and develop individual and collective knowledge creates new opportunities for the development of internal technological, marketing, management, production competencies. Participation in alliances, vertical chains, facilitates this process by increasing the flow of information received from different segments, teams, individuals, joint research associations. This drives organizational and management changes and reconfiguration of resources and capabilities.

The complex connections and relations between the participating companies in the vertical chain of value creation in the construction market objectively impose the need for their improvement and more effective management. Standard practices driven by short-term economic goals often show little concern for energy efficiency or even more for the

economic, social or environmental impact of the product being created. The green transition requires an objective end to these practices and the development and application of integrated design principles - the approach for complete production systems, which starts from the earliest stages of the project and requires the responsible commitment of all participants in the process from beginning to end ("cradle to grave" or "cradle to cradle"): investors, entrepreneurs, managers, scientific researchers, designers, customers, contractors, suppliers of raw materials and materials, administrative authorities, lawyers, which in practice means significant changes in the organization, coordination and management of all levels.

An important stimulus is the process of digitalization, which stimulates and facilitates the process of sustainable development based on the collected and analyzed information [19], transforms the structure of social relationships between users, between companies and between users and companies, through social media and social networks. Manufactured products (goods and services) are becoming increasingly digital, by embedding more digital services and features into them. Digitization extends scope by facilitating connections with other interconnected and/or complementary firms, research units, elements of the external environment. At the same time, the use of digital resources and information exchange through digital platforms inside and outside the company unites all operational activities and strategies at different levels, optimizes intra-company operations and strategic behavior (reaction to the actions of competitors).

In other words, the digitalization of company activity provides a complete picture and complex analysis of the product life cycle (from the idea to the destruction and reuse, etc.), which stimulates innovation, shortens development and implementation time, and increases productivity. In addition, the system is an effective way to integrate and work together with the whole team, because from the beginning detailed information is provided to each participant, which reduces errors and unnecessary changes, transaction costs, asymmetry and loss of information that traditionally occur within the vertical supply chain.

The transition to sustainable development also facilitates the process of moving from a linear to a circular model of production and organization of activity, which creates new opportunities for coordinated actions at local, national, regional and global levels. At the same time, this transition is also an incentive to achieve company growth without increasing resource consumption, and also involves a deep transformation of production chains, changing consumer habits and redesigning industrial systems at the systemic level [20]. Realizing the principles of the circular economy is the key to achieving the goals of sustainable development (clean water, energy, economic growth, sustainable cities, sustainable consumption and production, etc.). Streamlining the regulatory framework by public institutions can accelerate this transformation to achieve an economy that is on the one hand cleaner, climate neutral, and on the other hand more competitive and resource efficient.

4. CONCLUSION

In recent years, business has been under constant pressure not only from customers, competitors, unforeseen factors, but also from various public groups and regulators for more active engagement and response to sustainable development issues. Construction plays a key role in achieving these goals, which requires every company to rethink the relationship and dependence between the economic, natural and social systems. There are a number of challenges - obstacles/barriers, but also enough opportunities to turn the sustainable development of the market and the company into a dominant trend. This determines the purpose of the research: 1) identification of obstacles/barriers to

sustainable development of the construction market, 2) analysis of opportunities for sustainable development.

The research was conducted on the basis of a developed and approved methodology for analyzing the sustainable development of the construction market, and in particular identifying the existing challenges (obstacles and opportunities), under restrictive conditions that take into account the specifics of construction as a business, product, process, organization and management.

In the study, 50 barriers were identified and summarized, divided into 5 groups - legal, technological, economic/financial, social and cultural, environmental. There is a strong interrelationship between the barriers preventing the sustainable development of the construction market and the firm. Identifying this interrelationship is an important condition and factor for making informed decisions by all stakeholders regarding the successful integration of sustainable development in the construction industry.

Legal barriers are a function of passivity of interested parties, insufficient information, skills for its assimilation, assimilation and conversion into knowledge. Economic/financial barriers are largely a function of poorly developed and working technology, as well as the degree of development of the social and cultural environment. And social, cultural and ecological barriers are a reflection of education, training, the ability to transfer and integrate external and internal knowledge, create new competencies, understand the role of the ecological and social environment.

Sustainable development is not a fixed state, but a source of change. In other words, a positive change in one barrier is a condition for a positive change in others, or the removal of one barrier will cause a multiplier effect on the others as well. Information, knowledge, education, training, competences, or intangible resources have a decisive role and influence in this system of barriers. Actions and skills for observation, accurate, objective and competent analysis of the collected information and evaluation of alternatives outline the development opportunities. It is the basis for improvement, development, search for new more effective combinations or, in short, reconfiguration of existing internal resources, developed on the basis of past, history, culture, value and experience, to reach the desired positions in a timely and efficient manner. They are the basis that creates the following new opportunities/incentives for sustainable development in each market:

1) Customers, stakeholders and society expect and demand innovative, high quality and superior products and services, operations with less waste, reduced impact on health, safety and the environment, increasing corporate responsibility for decisions, technologies, products, processes and activities in each aspect of the business enterprise. In addition, these expectations also apply to the operations, actions and contributions of vertical supply chains, partners, allies and others that are directly and indirectly related to the company.

2) Globalization, technological changes, the growing power of stakeholders, the rapid transfer of information, knowledge and technology, the outsourcing of operations and increasingly intense market expectations and competitive responses define the new dynamic business environment. In addition, the transformation to a digital world, the reduction of product life cycles, the fusion of technologies, the personalization of expectations, the increased importance of partnerships and relationships, and the diffusion of information place the firm in completely new conditions that require innovative management structures to achieve sustainable success.

3) Success depends primarily on the competence, propensity to risk of the top management team and their vision of harmony between the company, people and nature.

They must transform the structure of the firm from linear to circular and sustainable, create interactive management structures that take into account and adapt to the social, political, economic, environmental, market and technological realities of the 21st century, which are increasingly difficult to predict .

Sustainable company development can ensure the desired long-term successes in the presence of a strong motivation for change, transforming the activity, strong leadership and effective strategic planning. Managing a company is becoming increasingly complex and requires new thinking, broadening the scope of analysis, evaluating vast amounts of information and making decisions that take into account many additional considerations. The main focus is on how company operations affect people and the natural environment as they manage its affairs, designs, manufactures and sells products, acquires and uses facilities and resources necessary to satisfy the wishes of customers, stakeholders and society.

APPENDIX

Appendix 1. Obstacles/barriers that hinder the sustainable development of the construction market

I. Legal Barriers
1) Lack of established standards for the design of sustainable buildings.
2) Lack of political and financial incentives from the state.
3) Lack of regulations and guidelines for implementation.
4) A small number of projects and realized objects that meet these standards.
5) There is no mass application of the principles of sustainability in the construction market.
6) Insufficient knowledge of specialists.
7) Lack of information.
8) Lack of support from public and local institutions.
9) Inadequate policies and lack of oversight.
10) Complexity of the process of transition to a sustainable economy.
11) Lack of sustainable strategies at the sectoral level.
II. Technological barriers
1) Lack of adequate information and skills for its assimilation and transformation into knowledge.
2) No guarantees of higher performance.
3) Technological issues in recycling, recovery and reuse of materials.
4) Lack of organizational and management changes.
5) Presence of a large number of small companies with limited financial, material and human resources.
6) Insufficient application of digitization, information technology.
7) Low propensity to risk of managers .
8) Low level of education on the issue.
9) Inefficient cooperation of all participants in the vertical chain of construction activities.
10) Low level of inter-company relations and communication.
11) Demotivation of the participants in the process.
12) Lack of vision and skills for strategic management of the entire product life cycle.
13) Lack of internal integrated systems for employee motivation and stimulation.

III. Economic/Financial Barriers
1) High cost and final price of the sustainable product.
2) Relatively limited market supply and demand.
3) A complex mechanism of forming the budget and determining the price of the final product.
4) Difficulties in estimating costs at each stage of the construction product life cycle.
5) Difficulties in analyzing and comparing higher initial costs with lower costs throughout the life cycle of the construction product.
6) Analysis of sustainable materials prices, certification costs.
7) Undeveloped market for recycled materials.
8) Access to finance.
9) Customer willingness to pay.
10) Additional construction costs for reclaimed and recycled materials.
11) Lack of incentives and clearly defined benefits.
IV. Social and cultural barriers
1) Lack of skills to develop sustainable stakeholder-focused strategies.
2) Momentum of the construction sector.
3) Lack of concern for recycling and reuse of reclaimed materials.
4) Lack of trust between the participants in the construction process.
5) Specificity of cultural environment, beliefs, convictions, attitudes.
6) Consumer culture in the modern consumer society.
7) Lack of global vision.
8) Lack of cooperation.
9) Misunderstanding the problem - sustainable development (usually reduced to an environmental problem, and in the construction market to energy efficiency of buildings).
10) Expressed consumer preferences for using new construction materials rather than recycled ones.
11) Built-in linear thinking.
12) Culture of behavior - waste is inevitable.
V. Environmental barriers
1) Lack of awareness, knowledge and understanding of the environment and the negative impact on it.
2) Lack of understanding of the challenges facing the construction market (environmental protection, decarbonization, construction waste management).
3) Lack of incentives to introduce ecological, social, economic assessment methods.

Appendix 2. Opportunities that support and stimulate the sustainable development of the construction market

I. Assessment of the role of company actions and practices aimed at stakeholder support:
1) Creation of formal and informal communication channels with external stakeholders.
2) Active dialogue through meetings, conferences and newsletters with external stakeholders on sustainable development issues.
3) Clarification of the strategic plans for sustainable development of the company and requirement for objective feedback from external stakeholders.
4) Development of new strategies for sustainable development through a process of public consultation and exchange of opinions and experiences.

5) Constantly updating the base of information and knowledge from external sources related to environmental news.
6) The development of a strategy for green markets and green products based on information about new customer preferences guided by the idea of sustainable development.
7) Monitoring of the legal basis, norms, standards in the direction of sustainable development, requirements and regulations.
8) Analysis of collected information and evaluation of alternatives for company development.
9) Development of capacity for acquisition, assimilation and creation of new knowledge, skills, new way of thinking.
10) Creating new combinations of resources and developing programs and plans to change and reconfigure existing operational competencies and develop innovations (product and/or process).
II. Assessment of the role of company actions and practices aimed at using and reconfiguring company resources and competencies:
1) Assessment of market competencies: market dynamics - product market, customer preferences, marketing practices used by competing companies, degree of renewal of products and additional services offered.
2) Assessment of technological and innovative competences: dynamics of technological changes and the innovation process, opportunities and threats for company development, the need to develop new products through new product technologies, creating ecological product design, an integrated approach to analysis and strategic management of the life cycle product cycle.
3) Assessment of management and organizational competencies: development of management capacity, adequate and rapid actions and decisions to stimulate innovation, update of marketing programs, participation of managers in innovative groups and control over the performance of relevant tasks and functions.
4) Creation of an effective organization and management structure for research and implementation of new, good sustainable practices, taking into account the specifics of the company and the market where it operates.
5) Encouraging and supporting employees to share good practices and new sustainable ideas.
6) Creating specialized teams with the participation of external groups of stakeholders and supporting their activities aimed at joint management of sustainable projects.
7) Experimentation of new clean technologies.
8) Focusing on the development of practices and procedures that have a lower level of impact on the environment.
III. Assessment of the role of learning and knowledge transfer for sustainable development of the market and the company:
1) The learning process and knowledge transfer are key to the sustainable development of the company and the realization of strategic goals.
2) Ability to absorb, generate, integrate external and internal knowledge is key for the company.
3) The transfer of knowledge and the integration of external and internal knowledge allows the development of a new vision and development strategy that takes into account the interests of the three parties - customers, company and society.
4) A key factor for the success of the learning and knowledge transfer process in the

company is the ability to absorb and assimilate innovations, which affects the current activity and future development of the company.
5) Creating a mechanism for integrating individual knowledge into a collective system provides new configurations of resources and opportunities.
6) Integrating and coordinating ability allow the firm to reassess the resource and find a way to use it in a new, more efficient way.
IV. Assessment of the role of digitization of company processes for sustainable development:
1) Digitization accelerates the process of gathering, analyzing and evaluating information from the external environment and relations with all directly and indirectly interested parties.
2) Digitalization accelerates the process of coordination and integration of knowledge, skills, competencies of all participants in the vertical chain of created value by creating a digital network model.
3) Digitization enables the creation of network effects and multilateral platforms.
4) Digitization facilitates the process of analysis, assimilation, and assimilation of new information and its transformation into knowledge.
5) Digitalization is an important factor for building strategic alliances, facilitates formal and informal partnerships.
6) Digitalization reduces the time to develop and bring new products to market.
7) Digitization reduces time and improves strategic and operational decision-making.
8) Digitization facilitates connections and increases the efficiency of the integrated vertical chain.
9) Digitalization reveals new opportunities and distinctive competencies of the company.
10) Digitalization reduces the time to discover new development opportunities and neutralize threats.

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