

Sustainable Practices of the Construction Company

Aneta Marichova

Assoc. Prof., PhD, Social Sciences Department, University of Architecture, Civil Engineering and Geodesy, 1 Hristo Smirnensky, 1046-Sofia, Bulgaria

Date of Submission: 20-04-2023

Date of Acceptance: 30-04-2023

ABSTRACT: In today's dynamic conditions, business has been under constant pressure not only from customers, competitors, unforeseen factors, but also from various social groups and regulators for more and more active involvement and response to the problems of sustainable development. The construction market with its specifics plays a key role in achieving these goals. This requires the company to focus on sustainable development by rethinking the relationship and dependence between the economic, natural, and social system.

The aim of the research is to develop a model including common sustainable practices – a link between sustainable company development and building competitive advantages.

The study uses a method based on open and standardized data collection and uses a correlation coefficient. The conducted empirical study of 24 companies operating in the construction market in Bulgaria proves the links in the model "Sustainable Practices - Competitive Advantages", taking into account the specifics of the market. The results show the need to study sustainable corporate development as a long-term process that requires the development of strategies and implementation of sustainable practices aimed at building competitive advantages (economic, social, and environmental) and performance.

KEYWORDS: Sustainable Development, Construction Market, Company Strategy, Sustainable Practices, Competitive Advantages

I. INTRODUCTION

In recent years, business has been under constant pressure not only from consumers (changing tastes, preferences, demand), growing external and internal competition, unforeseen, shock factors, but also from various social groups and regulators for more and more active involvement and response to the problems of sustainable development (economic, social and environmental). However, this concept presupposes technological

and social constraints (not within absolute limits), a result of the level of development reached, which of course can and must be changed (WCED, 1987). Therefore, sustainable development is not a fixed state of harmony, but a progressive (not absolute) goal that directs corporate development and management to change in a way that ensures the simultaneous realization of the three goals - sustainable economic growth, environmental improvement and social justice.

The construction market occupies an important place and plays a key role in achieving these goals, with special emphasis on the need for renovation, decarbonisation, introduction of digital information systems and sustainability of buildings and construction facilities (EC, 2019). The main reasons for this conclusion are primarily related to the environmental effect of construction activity, which is characterized by high resource intensity. On the other hand, construction is a structurally defining sector in any economy that affects the overall economic development as directly (through the high relative share in GDP, value added, large number of construction companies, employment, income, consumption and domestic demand) and indirectly along the lines of intersectoral links. The construction market is important not only from an environmental and economic point of view, but also from the point of the social effect on consumers. This effect is determined and depends on the ability of the final construction product (buildings and facilities) with its characteristics to provide the desired quality of life, comfort in all its aspects - visual, thermal, acoustic, healthy microclimate of the premises inhabited by people. The built infrastructure determines the degree of freedom and flexibility that society can enjoy.

The challenges of the construction market increase as a result of the specifics of the construction product (immobility, individuality, durability, high resource intensity), the construction process (the complex relationships of the various

entities involved in it), the specifics of the different market segments (building construction (residential and non-residential) and civil engineering), the influence of various subjective and objective factors that increase its instability. In addition, a common feature of the construction market is the presence of too many, mostly small companies, which means relatively limited technological, market, financial and innovation opportunities.

One more well-known fact can be added, typical of most markets today. The distribution and use of scarce resources in practice is carried out by the market, or private individuals, managers, who in their behavior are guided mainly by self-interest and the main goal is to achieve higher profit for the company and shareholders. Usually, social and environmental goals are subordinated to this main goal. Most often, solving them is a function of legal requirements, pressure from customers, competing companies and society as a whole, which allows the company to maintain its reputation. Under these new conditions, a new orientation towards sustainability is needed, because the well-known

traditional models of corporate behavior have an increasingly limited role and a chance for success.

Sustainable development of the company is a long-term process that requires organizational and managerial changes, development of strategies and policies, implementation of sustainable company practices in accordance with the needs of both current and future generations and aimed at creating, offering and realizing additional economic, social and environmental value for the client, stakeholders and society as a whole and building competitive advantages.

This determines the purpose of the study - 1) to develop a model that includes common sustainable practices, which are the link between the sustainable development of the company and the building of competitive advantages (fig.1), and 2) empirical study of the model in companies operating in the construction market, which will prove the interrelationships and dependencies in the model and the influence on the process of building competitive advantages.

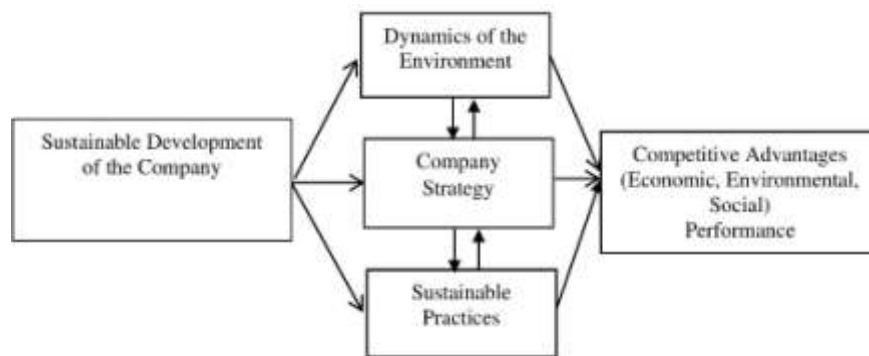


Figure 1. Strategy and sustainable practices - a link between sustainable development of the company and building competitive advantages

II. THEORETICAL MODEL AND

Sustainable development is a social process and the emphasis is on the idea of change or development, by engaging many stakeholders with different levels of influence and powers, which ensures the realization of economic, environmental and socio-cultural goals (EC, 2009). In this context, the sustainable development of the company is seen as a process in which it seeks to manage the conflicting interests of stakeholders and to balance its financial, social and environmental risks, obligations and opportunities through a new strategy and specific company practices (Goldsmith, Samson, 2005). They are implemented in accordance with future as well as current needs and can be defined as sustainable company practices. The sustainable development of the company is a

HYPOTHESES

factor for building competitive advantages (economic, social and environmental) and performance, and the connection between them is the company's strategy and sustainable practices.

The strategy defines the scope, portfolio of products and activities that are carried out within the direct control and ownership of the company and aims to create a unique value proposition in each business unit of the organization, which is a factor for competitive advantages (Schrettle, Hinz, Scherrer, Friedli, 2014).

The development of a company strategy oriented towards sustainable development is a function of analysis of the impact of the external environment (stakeholders), and of analysis and assessment of internal resources and operational

competencies and on this basis their change in order create a strategic resource. This requires a comprehensive view of the business environment, taking into account not only the social, economic and environmental aspects of the activity, but also the traditional company goals - to satisfy the desires of customers and expand market positions.

The developed sustainable strategy is characterized by a breadth that identifies the scope, the included social and environmental areas on which the company focuses and the depth - the extent to which it is committed to meeting the challenges. From this point of view, within the generally accepted strategy, sustainable strategy can have different characteristics and defined as: defensive strategy, offensive strategy, ecological efficiency strategy and sustainable development (proactive) strategy (Myers, 2022, Murillo-Luna, Garcés-Ayerbe, Rivera-Torres, 2011). The choice of a strategy oriented towards sustainable development of the company is a function of the characteristics of the market structure, the specifics of the industry, the competitive company policy, the vertical chain in which the company participates, the company's own characteristics (size, history, experience), competencies and capabilities.

The proactive strategy is a multidimensional construction that develops on the following main directions:

- Active communication with direct and indirect stakeholders (end customers, shareholders, suppliers of equipment, raw materials, employees, government, non-governmental institutions, media, research institutes), a function of external environment analysis.
- Assessment of tangible and intangible resources, integration of individual knowledge, coordination, synchronization of business activities in order to change and reconfigure operational competencies and create a strategic resource (VRIO), a function of analysis of the internal environment.
- Creating an integrated vertical management system.
- Creating a new, sustainable business model.

These are the four key directions on which the sustainable practices of the company are built.

Sustainable practices include guiding principles that determine the management team's approach to assessing the dynamics of the external environment (stakeholders), assessing the internal environment (resources, competencies) and achieving synchronicity, balance between company goals and strategy, with customers goals and all stakeholders. Therefore, they include such policies and actions of the company that allow it to realize

both environmental and social values for society and economic values for itself.

The application of the practices for sustainable development is of strategic importance and a factor that motivates and attracts investors, increases the image in society and among stakeholders. The result is the improvement of the entire company activity and the realization of the goal - building competitive advantages and long-term business success, which include both financial and non-financial indicators, and in the long run non-financial results have a positive impact on financial results.

There is no single set of sustainable development practices for all markets that are characterized by significant specificities. It is difficult to point out a single set of practices for sustainable development of a company, as each has a unique business strategy and operates in a dynamic external and internal environment and high uncertainty. There is a combination of known good, general practices, applied specifically in each company, taking into account its specifics, and the specifics of the market and the environment in which it operates (Eisenhardt, Martin, 2000).

Good sustainable practices include, first and foremost, a set of principles that guide company development towards deepening relationships with stakeholders (investors, customers, suppliers, owners, employees, financiers, regulators) and achieving a higher level of approval, cooperation and support. To this end, it is necessary to create an effective system for monitoring, processing and exchanging significant amounts of information. Interpretation of the collected information requires special knowledge and skills that belong to individuals, but is also the result of accumulated knowledge, experience in the organization as a whole. In order to achieve the desired effect, a synthesis is needed between the knowledge of individuals and the company as a whole organization by acquiring, assimilating, integrating external knowledge with internal. Monitoring, evaluation of alternatives, exchange of information and learning, development forecasts are processes and actions that allow active communication, cooperation and support from stakeholders and reduce environmental and social pressure on the company. This determines the first hypothesis in the study:

Hypothesis 1: Sustainable practices aimed at active communication, cooperation and support from all (direct and indirect) stakeholders have a positive impact on the sustainable development of the company, building competitive advantages

(economic, environmental and social) and performance.

Good practices oriented towards sustainable development of the company are developed both on analysis and assessment of external factors (stakeholder relations, environmental and social regulatory standards, changes in demand, technology, market structure, competitive strategies) and on analysis and assessment of internal factors. These are the company's skills for integrating knowledge, coordination of people and actions, reconfiguration of internal resources (tangible, intangible and organizational), operational abilities (skills for carrying out the daily routine activity) and distinctive competencies (unique combination between internal resources, result of managerial and organizational decisions). This analysis and assessment allows to determine the degree of correspondence between them and the dynamics of the internal and external environment, and the necessary changes in order to adapt and create a strategic resource (VRIO - Value, Rare, difficulty for Imitation and Organizational capabilities of the company for its use) (Barney, Hesterly, 2005). Company digitalization increases the rationality of management decisions aimed at sustainable consumption of resources, eco-innovation in sustainable products, circular production and consumption, decarbonization of the economy (Bharadwaj, El Sawy, Pavlou, Venkatraman, 2013). This determines the second hypothesis in the study:

Hypothesis 2: Sustainable practices aimed at reconfiguring and creating a strategic company resource (VRIO) have a positive impact on the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance.

Good sustainable practices are aimed at developing new relationships within the created integrated vertical chain, which include all entities, organizations and activities (from the beginning - design, to the end - production, realization, demolition, reuse), by building links - up and down and creating of value in the form of product and services to end users. The basis for this is the established mechanism for knowledge transfer and training at different levels of the chain, which reveals new ways of cooperation with stakeholders and brings mutual benefits (Wu, 2017). Sustainable practices in an integrated vertical chain develop on the ability to integrate and coordinate resources, people, tasks, create long-term formal and informal relationships built on trust, work together and

develop "open, complementary" innovations. These processes stimulate the interaction between all participating companies and create new perspectives for sustainable development.

Hypothesis 3: Sustainable practices aimed at creating an integrated vertical management chain have a positive impact on the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance.

Complex solutions to environmental, social and economic problems require transforming the organization in a way that ensures the sustainable development of the economy and society, within the existing ecosystem and creating a new business model (Whiteman, Walker, Perego, 2013). Each business model is the economic basis of strategic behavior and relates to the way the company organizes, manufactures and sells its product, connects resources, distinctive competencies and their development with the ability to offer and realize additional value for the customer. In addition, it shows the degree of interaction, synchronization between the different parts of a system (company reputation, cultural values, organization) with customers, stakeholders in order to achieve company goals. Therefore, the creation of a new business model is a result of the application of sustainable practices of the company, which allow the implementation of the chosen strategy (Schaltegger, Lüdeke-Freund, Hansen, 2012). This process develops "from the outside-in" and includes the following several actions - identification of target customers, assessment of key company activities, resources, competences and solutions for change, digitization of company processes, interaction between all participants in the vertical chain and creation of additional economic, social and environmental value for the client, stakeholders and society as a whole. This determines the fourth hypothesis in the study:

Hypothesis 4: Sustainable practices aimed at creating a business model have a positive impact on the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance.

The creation of cooperation and support from stakeholders, reconfiguration and creation of a strategic resource (VRIO), an effective integrated vertical chain and a new, sustainable business model are the common characteristics of sustainable practices, which, however, are applied specifically in each company. This defines all four hypotheses that will be tested on the construction market (fig.2).

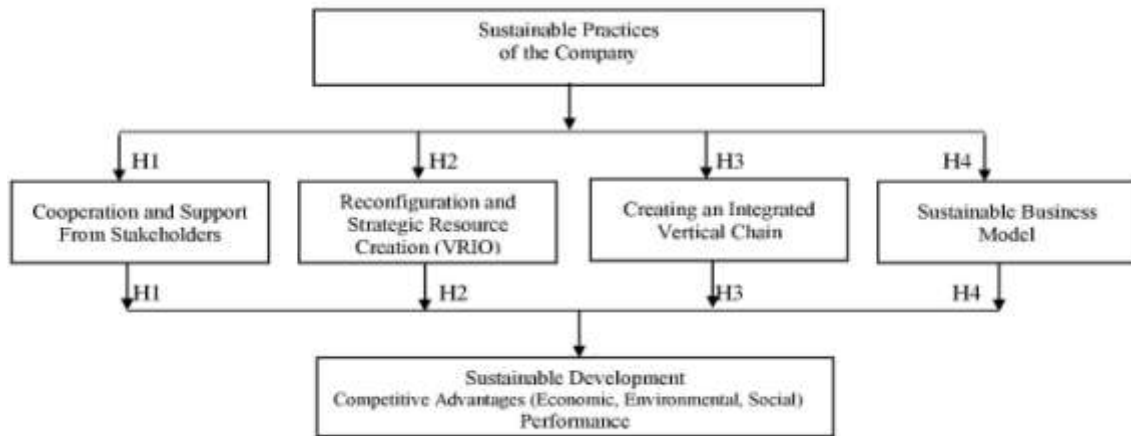


Figure 2. Sustainable practices of a company with a proactive sustainable strategy - a factor for sustainable development and building competitive advantages

III. EMPIRICAL RESEARCH

2.1. Object of the research

The empirical study was conducted through a developed and applied methodology for evaluating the defined hypotheses. The study includes 24 construction companies included in the top 50 in Bulgaria. They are randomly selected, have been working for more than 5 years and have enough accumulated experience in a dynamic environment. The investigated companies work in different market segments (16 of them work in the building construction (residential and non-residential) market and 8 in the civil engineering market). They have a different degree of diversification or specialization in the relevant market segment, a different range of activities, a different history, a different territorial localization, a different business model, which allows making generalizations with the necessary objectivity. The studied companies have different history, experience, resources, competencies and capabilities related to the production, organization and management of the company, different positioning in the market and apply different (such as breadth and depth) sustainable strategy and practices.

2.2. Procedure and research tools

The information was collected through an online survey among senior managers of the selected companies. The specificity of the researched problem makes it necessary to include in the study one respondent from each company, who, however, is supposed to have complete information and knowledge about the company he leads. Due to the expressed desire of most of them for confidentiality and anonymity (referring to company secrecy), respondents are given the opportunity to

submit the survey without indicating their name or the name of their company.

The specifics of the construction market (market segments), which influence the strategic behaviour of companies, require the following clarifications to be made in the research:

The civil engineering market is characterized by a stable industry structure, relatively stable horizontal and vertical boundaries, a stable number of competitors, consumers, suppliers, clear and predictable behaviour of participants. The eight investigated companies in this market are large (employing more than 250 people), have many years of experience and are well known in society. Their activity covers the entire construction process (investment, design, construction, management) and the entire vertical chain of construction activities. The companies have a complex structure with divisions throughout the country and offer a widely diversified product (or highly specialized) for all market segments, for all customers. The necessary company competencies and managerial skills are available for effective transformation of resources into the desired end result. New, innovative technologies are applied that allow compliance with the basic principles of engineering: security, technology, efficiency, aesthetics, and functionality. The solutions are accompanied by clear evaluations and predictions of reaction of customers, competitors, suppliers, interested parties and especially of government institutions that define and control product standards and the general rules of the game.

The building construction (residential and non-residential) market is characterized by the lack of a clearly defined market structure and defined boundaries. The participants (competitors,

consumers, suppliers, etc.) are constantly changing, with an unclear profile, unknown actions, and reactions. There is no known, established and well-functioning business model, which puts every manager in front of a serious test. The studied companies are small and medium-sized (with employment up to 100 people). They offer unique, flexible solutions, tailored to the principles of quality, correctness, efficiency and the individual wishes of each client. A characteristic feature of the companies operating in this market is the focus mainly on their own customers and the lack of a long-term strategy and long-term vertical relations. More transparency and information about the company's activities is needed by activating relations with interested parties and evaluating the opinion of employees, suppliers, communities, and shareholders about the product it offers. The main task is to find the right balance between entrepreneurial ideas, competences, managerial skills and sustainable development practices, which are essential for business, its success and competitiveness.

The survey includes a total of 24 questions (Appendix 1), constructed as wording, to which respondents refer, noting their answers from 1 to 5 on the Likert scale (where 1 means "strongly disagree" and 5 means "strongly agree"). Since the goal is to determine the correlation and evaluate the influence of the independent variables (the general characteristics of sustainable practices) on the dependent one – (sustainable development, building competitive advantages in the three aspects (economic, social and environmental) and the performance), the research is divided into four parts that follow the formulated hypotheses. The questions are formulated comprehensibly, the necessary explanations for certain terms have been added, but they do not exclude the influence of the subjective factor when evaluating the results achieved (compared to competitors) as a function of the specific practices applied. Cronbach's alpha coefficient was used to assess the the internal interrelation of the researched problems, and the high value (significantly higher than the accepted base of 0.7) proves the consistency of the questionnaire and representativeness of the final results.

The questions included in the survey (Appendix 1) allow to determine the impact of sustainable practices on the realization of competitive advantages (economic, social, and environmental) and performance, considering the following aspects of the company's activities:

The positive role of active communication, cooperation, and support from all (direct and

indirect) stakeholders (Hypothesis 1) is a function of company capabilities to monitor the dynamics of the external environment, identify new opportunities, creating formal and informal channels of communication, which enables joint development of new strategies for sustainable development and sustainable project management.

The positive influence of practices aimed at reconfiguring and creating a strategic company resource (VRIO) on the realization of competitive advantages (in the three aspects) and performance (Hypothesis 2) is a function of an analysis of the internal environment and includes assessment of managerial, organizational, operational capabilities (market, technological, innovative), training, knowledge transfer, acquisition, integration of new resources and competencies, which creates new opportunities for solving social, economic, environmental and market problems.

The effectiveness of sustainable practices aimed at creating an integrated vertical management chain (Hypothesis 3) is a function of the established mechanism for knowledge transfer and training at different levels of the chain, new ways of cooperating with stakeholders, the ability to integrate and coordinate resources, people, tasks, long-term formal and informal relationships, trust, integration and cooperation between companies.

The positive impact of sustainable practices aimed at creating a new business model (Hypothesis 4) in the survey was assessed on the basis of the company's actions and decisions that allow effective use and reconfiguration of tangible and intangible resources, interaction between all participants in the vertical chain of the beginning to the end of the production process, expansion of the activity, creation of a new product based on the principle of the circular economy (Wells, 2013), which allows offering and realizing additional economic, social and environmental value for the client, stakeholders and society as a whole or building competitive advantages and performance.

IV. RESULTS AND DISCUSSIONS

In the analysis of the results obtained from the study, the average values of the answers from the conducted online survey were first calculated, which show the influence of the individual components of sustainable practices (the independent variables) on the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance. On this basis, Pearson's coefficient (R) was calculated for the entire sample. To add more explanatory power to the empirical results, the analysis also used the coefficient of

determination (in %) - R^2 , which gives a more accurate estimate and shows what percentage of changes in the independent variable will lead to changes in the dependent (the remaining percentages up to 100 define the uncertainty factor). The calculated Pearson correlation coefficient is statistically significant, indicating that there is a positive correlation between sustainable practices with the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance. Since

the correlation coefficient is significantly greater than zero, this by definition allows the rejection of the null hypothesis of independence between the variables under study. The high values of the coefficient of determination (R^2) prove the formulated hypotheses - the positive influence of the dynamics of the investigated independent variables on the dependent - sustainable company development and building competitive advantages (Table 1).

Table 1. Correlation between common characteristics of sustainable practices and the sustainable development of the company, building competitive advantages (economic, environmental and social) and performance

Sustainable Practices Aimed at:		Sustainable Development Competitive Advantages (Economic, Environmental and Social) Performance
Active Communication, Cooperation and Support From Stakeholders	Pearson Correlation – R Coefficient Of Determination (%) - R^2 N=24	0.657 43.16
Reconfiguration and Strategic Resource Creation (VRIO)	Pearson Correlation – R Coefficient Of Determination (%) - R^2 N=24	0.723 52.27
Creating an Integrated Vertical Chain	Pearson Correlation – R Coefficient Of Determination (%) - R^2 N=24	0.863 74.47
Creating a Sustainable Business Model	Pearson Correlation – R Coefficient Of Determination (%) - R^2 N=24	0.745 55.50

Correlation is significant at the 0.01 level (1-tailed). Source: Own calculations

The obtained results allow determining the influence of each individual component (factor analysis) on the general sustainable practices studied and their indirect influence on the construction of competitive advantages and performance (Fig.3, Appendix 2).

The results of the research outline the main conclusion - the interviewed managers understand the relationship between the various common characteristics of sustainable practices and the sustainable development of the company and building competitive advantages (economic, environmental and social), but also the complex problems before them:

There is a growing need to expand communication with stakeholders, especially those that are more difficult to identify, outside of the company's traditional communication channels and have therefore been underestimated ($H1=0.657$). If

their influence is neglected, it can become a major source of potential sustainable risks for the firm (Steurer, Langer, Konrad, Martinuzzi, 2005).

The creation of a strategic resource (VRIO) is a function of management decisions and actions – development and implementation of a product with a new eco-design, reuse and joint use of the product, supplies of raw materials, incl. and recycled, using new technologies that reduce the negative impact on the environment, adapting to the dynamics in the external environment, which is only a supplement to the responsibility of generating income ($H2=0.723$).

Sustainable practices developed on digitization allow the company to go beyond the traditional boundaries of the market in which it operates, traditional supply chains and expand its scope of activity by building and/or joining strategic alliances, formal and informal

partnerships, especially in areas in which they individually have no competitive advantages (Turley, Geiger, 2006). The process is facilitated by the development of digitalization, as a combination between the established information technology and the abilities and skills of managers for personal contacts with stakeholders and especially with employees.

The creation of an integrated vertical chain requires a process of monitoring, collection, analysis, information integration, knowledge transfer, reconfiguration, cooperation, supply coordination and green logistics, which creates new opportunities for creating a sustainable product and developing a "green" market ($H3=0.863$). Solving this and a number of other problems can only be a function of expanding the implementation of sustainable strategies and practices in all participating firms, sharing risks and responsibilities with chain partners.

The main challenge to transform or create a sustainable business model is how to realize the three goals (economic, social and environmental benefits) in the company at the same time and to find the balance between them, which can only be the result of innovation and learning ($H4=0.745$).

The study also shows some specifics of the different market segments, which confirm the conclusion that sustainable practices in a company are a function of strategy, specifics of the market in which it operates, of the supply chain to which it belongs, characteristics (size, history, experience), competencies and capabilities. Precisely these specifics determine a different degree of commitment to the problems of sustainable development.

For objective reasons (the specifics mentioned above), commitment is higher in the the civil engineering market (with a higher level of concentration), where a small number of large firms with significant influence in society operate. They are usually very concerned about their reputation, image, media attention and build strong relationships with stakeholders. Companies operating in this market develop general principles and procedures of sustainable behavior, on the basis of which they build their relations with them.

Their strategic behavior does not exclude, but on the contrary, accepts as mandatory joint work on current issues of sustainable development (reduction of environmental pollution, decarbonization, training and social protection of the employed), which improves the development prospects of all participants. Of particular importance is the ability to attract the attention of state institutions and their cooperation to solve

problems. In this market, the companies, oriented to a proactive sustainable strategy applies a systematic, holistic approach, develops detailed, analytical procedures and routine actions, the result of accumulated experience, history, integration of knowledge and sufficient information. Their stable market positions and market power provide them with the necessary financial and non-financial resources in order to preserve and increase competitive advantages.

In the civil engineering market, companies have well-developed opportunities for flexible development and reconfiguration of resources in order adapt to the dynamics of the external environment, as well as experience in creating a sustainable construction product, effective vertical connections and digitalization of the construction process. A strategic company resource is created as a result of effective organization and management, combined with history, experience, reputation and innovation in intangible assets (people, knowledge and systems), management competencies and skills to effectively transform resources into the desired end result. In companies operating in the civil engineering market, the orientation towards sustainability is a leading cultural characteristic and is not dictated by the business strategy. Managers choose and implement the proactive sustainable strategy and the four key practices in their operations. This builds trust and increases public appreciation of how the market works.

In the building construction market (residential and non-residential), a market with a lower degree of concentration, there are many relatively small companies that do not have a clearly developed strategy and vision for development. The dynamism of the environment does not allow for an accurate analysis and assessment of the situation and to make well-thought-out decisions oriented towards sustainability. Analysis and decisions are not the result of the use of knowledge, experience, but above all of intuition, business acumen, chance, luck and propensity to risk. Firms often imitate and follow the approach of large firms to sustainable development issues and seek ways to formally and informally collaborate with them and other competitors. The goal is training, access to information, news and protection of one's own interests.

There is a lack of a common, long-term approach by all actors to stakeholders and pooling of resources and competences to solve sustainable problems. It is difficult to create independent associations with common interests, and each survives alone, coping better or worse with the

tasks set by customers and society. On the other hand, there is also the undeniable fact that small companies and their managers are less burdened with responsibilities, resources, assets that are difficult to part with. Therefore, they are often more flexible, innovative and adaptable. The absence of a complex administrative structure, bureaucracy, accumulated inertia and routine are also factors that increase their effectiveness.

Under these dynamic conditions and limited resources, companies usually undertake and implement a defensive or offensive strategy in their activities. Nevertheless, the decisions and implemented strategies are the basis for the development and creation of new specific knowledge and skills, which is a factor in following period the company to develop and implement sustainable strategies and practices with greater breadth and depth and build competitive advantages.

In the building construction market, companies need financial, legislative, organizational support, and help with knowledge and learning. It is necessary to create new operational models that can facilitate the double transformation (green and digital) of the construction market, the exchange, transfer of information, knowledge and continuous learning, which are key factors for the success of the construction company.

V. CONCLUSION

The proposed research aims to develop a model "Sustainable Practices - Competitive Advantages" to be empirically tested in the construction market. According to the author, sustainable practices are the link between the sustainable development of the company and the building of competitive advantages, because:

- The sustainable development of the company affects all aspects of its activity and requires a fundamental rethinking of the role and function of resources and competences, of development alternatives, which practically means the formation of a new way of thinking and a model of behavior.
- The main goal of the sustainable strategy is the construction of competitive advantages (and not just making a profit) as a factor for realizing the company's goals in the three aspects (economic, social and environmental). This requires skillful matching, coordination and synchronicity between applied practices and satisfying the goals of customers, society and stakeholders, which in practice means

creating, offering and realizing higher added value.

- Sustainable practices lead to the desired long-term success of the company when they are comprehensive, in sync with the strategic goals, effectively integrated into the general philosophy of the business, maintain its leadership positions in the market and take into account company and market specifics.

The general conclusion of the construction market research is that the companies that have chosen a proactive sustainable strategy and work in the civil engineering market apply the four key characteristics of sustainable practices in their entirety, taking into account different specifics (these are 6 of the companies included in the research). Applied sustainable practices are more limited, include fewer of the common characteristics when firms choose a defensive or offensive strategy, which is characteristic of the building construction market (12 of the surveyed firms). Expanding the range of sustainable practices used, by switching to an ecologically efficient and active, sustainable strategy, is a key factor for company development and building competitive advantages.

The research proves a direct and very strong relationship between the choice of strategy and sustainable practices, but the relationship between the applied practices and the achieved results is not so clear and categorical. They can be measured through financial and non-financial indicators (product, production, financial efficiency, market positions, customer and stakeholder satisfaction, as well as long-term economic, social and environmental results), based on a comparative assessment with industry averages, in which the company operates, or with the best competitor. However, good results are not always and necessarily a function of the implementation of successful sustainable practices. Such a direct relationship can only exist when the applied general practices are comprehensive and in sync with the company's strategic goals, take into account its specifics, are effectively integrated into the general philosophy of the business and support its leadership positions in the market.

Sustainable practices are a system of repeatedly repeated actions aimed at monitoring and evaluating the dynamics of the external and internal environment, knowledge transfer, training, which impose the need to review the company's strategy and update the sustainable development practices used so far. The creation of the necessary coordination, training, integration of knowledge,

people, actions allow to realize the desired change, reconfiguration of resources and competences, which is the main condition for offering higher economic, social, and environmental value to stakeholders and building strategic competitive advantages, which in turn are measured by a sufficiently wide range of results, and not simply and only by the realized profit.

REFERENCES

- [1]. Barney, J., Hesterly, W. (2005). Strategic management and Competitive advantage. Concepts. Pearson Education, Inc. Upper Saddle River, New Jersey
- [2]. Bharadwaj, A., El Sawy, O., Pavlou, P., Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. *Management Information Systems (MIS) Quarterly*, 37(2), 471-482, <https://ssrn.com/abstract=2742300>
- [3]. EC. (2009). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development
- [4]. EC. (2019). A European Green Deal. Available:<https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal>
- [5]. Eisenhardt, K., Martin, J. (2000). Dynamic capabilities: What are they?. *Strategic Management Journal*.21(10/11), pp. 1105-1121
- [6]. Goldsmith, S., Samson, D. (2005). Sustainable Development and Business Success. A Report Of The Australian Business Foundation And The Foundation For Sustainable Economic Development At The University Of Melbourne
- [7]. Myers, D. (2022). *Construction Economics A new approach*. 5th Edition, Routledge. eBook. ISBN9781003287513, <https://doi.org/10.1201/9781003287513>
- [8]. Murillo-Luna, J., Garcés-Ayerbe, C., Rivera-Torres, P. (2011). Barriers to the adoption of proactive environmental strategies. *Journal of Cleaner Production*, 19, 1417–1425.
- [9]. Schaltegger, St., Lüdeke-Freund, F., Hansen, E. (2012). Business Cases for Sustainability: The Role of Business Model Innovation for Corporate Sustainability. *International Journal of Innovation and Sustainable Development*. Vol. 6, No. 2, 95-119
- [10]. Schrettle, St., Hinz, A., Scherrer, M., Friedli, Th. (2014). Turning sustainability into action: Explaining firms' sustainability efforts and their impact on firm performance. *International Journal of Production Economics*.147, Vol. 147, Part A, 73-84, DOI:10.1016/j.ijpe.2013.02.030
- [11]. Steurer, R., Langer, M. E., Konrad, A., Martinuzzi, A. (2005). Corporations, stakeholders and sustainable development: a theoretical exploration of business society relations. *Journal of Business Ethics*. 61(3): 263-28, DOI: 10.1007/s10551-005-7054-0
- [12]. Turley, D., Geiger, S. (2006). Exploring salesperson learning in the client relationship nexus. *European Journal of Marketing*. Vol. 40, No. 5/6, 662-681, <https://doi.org/10.1108/03090560610657886>
- [13]. WCED. (1987). *Our Common Future*. The World Commission on Environment and Development. NY Oxford University Press, ISBN 019282080X
- [14]. Wells, P. (2013). Sustainable business models and the automotive industry: A commentary.II.MB *Management Review*, Vol. 25, Iss. 4, 228-239, <https://doi.org/10.1016/j.iimb.2013.07.001>
- [15]. Whiteman, G., Walker, B., Perego, P. (2013). Planetary Boundaries: Ecological Foundations for Corporate Sustainability.*Journal of Management Studies*. Vol. 50, Issue 2, 307-336
- [16]. Wu, Q. (2017). *Developing Dynamic Capabilities for Corporate Sustainability: The Role Of Knowledge Transfer Between Supply Chain Partners*. PhD. University Of Bedfordshire

Appendix 1.

Components of the common characteristics of sustainable practices evaluated by the surveyed managers

"Please rate the impact of the stated sustainable practices on the realization of competitive advantages (economic, environmental and social) and performance in your company (mark your answers from 1 to 5, where 1 means "strongly disagree" and 5 means "strongly agree", on a Likert scale):

<p>I. Practices aimed at active communication, cooperation and support from all (direct and indirect) stakeholders:</p> <p>(1) Our activity is aimed at creating formal and informal channels for communication with external stakeholders and active dialogue through meetings, talks, conferences on issues of sustainable development.</p> <p>(2) We periodically clarify the company's strategic plans for sustainable development and require objective feedback from external stakeholders.</p> <p>(3) The development of new strategies for sustainable development in the company is realized through a process of public consultation and exchange of opinions and experience.</p> <p>(4) We constantly update the base of information and knowledge from external sources and periodically assess the likely effect of changes in the business environment on the behavior of stakeholders.</p> <p>(5) The development of a strategy for green markets and green products in the company is based on information about new customer preferences, guided by the idea of sustainable development.</p> <p>(6) In the company, we create specialized teams with the participation of external groups of stakeholders, whose activities are aimed at joint management of sustainable projects.</p>
<p>II. Practices aimed at reconfiguring and creating a strategic enterprise resource (VRIO):</p> <p>(1) The activity of our company is aimed at creating an effective structure of organization and management for research and implementation of new, good sustainable practices, taking into account the specifics of the company and the market where it operates.</p> <p>(2) The management team periodically assesses operational competencies (market, technological, innovative, managerial and organizational), which outline the necessary changes.</p> <p>(3) In our company, strategic decisions and management are aimed at technology development, innovation, which creates new opportunities for solving social, economic, environmental and market problems.</p> <p>(4) Our company's activity aims to change the market characteristics, acquisition, integration of new resources and competences, which allow development and offering of additional economic, social and environmental value to the client and stakeholders.</p> <p>(5) The company actively encourages and supports employees to share good practices and new sustainable ideas.</p> <p>(6) The processes of monitoring the dynamics of the external environment, evaluation of alternatives, training, knowledge transfer, integration and coordination allow successful reconfiguration of resources and distinctive competences and creation of a strategic resource in response to new development trends and expressed preferences of stakeholders.</p>
<p>III. Practices aimed at creating an integrated vertical management chain:</p> <p>(1) The integrated vertical chain stimulates the interaction between all participating companies, creates new perspectives for sustainable development, which facilitates the creation of additional value for the end user and stakeholders and the realization of higher efficiency.</p> <p>(2) The partners involved in the vertical chain are a valuable source of knowledge for the sustainable development of our company and the application of the principles of the circular economy, which is a factor for strategic cooperation and building collective (not company) competitive advantages.</p> <p>(3) The larger number of participants in the chain, with different functions and expertise, increases the knowledge capacity, facilitates the integration of external and internal knowledge and the creation of new knowledge in our company.</p> <p>(4) The transfer of knowledge in the integrated vertical chain covers a wide range of activities (formal and informal) and economic, environmental and social aspects, which positively affects the development of our company.</p> <p>(5) The creation of the integrated vertical chain increases the competences of our company because it has access to the specific knowledge and resources that other participants have and this is an important factor for stimulating "open, complementary innovations.</p>

(6)	The ability of managers to identify, develop and use their specific assets in combination with other specific assets of other firms, participants in the vertical chain of created value is unique and often very difficult to realize/imitate by competitors.
IV. Practices aimed at creating a new sustainable business model:	
(1)	The process of creating or transforming the business model into a sustainable one is extremely complex and difficult and proves the need for deep structural changes in our company and also in the thinking and attitudes of the management team.
(2)	The main task of creating the business model oriented towards sustainable development is the implementation of an extended approach that includes not only our company's customers, but also society as a whole (stakeholders).
(3)	The main principles of building the business model oriented towards sustainable development of our company are: efficiency of resources, social significance of the activity, ecological commitment, durability, ethics and enrichment, expansion of the activity.
(4)	Every successful sustainable business model is developed from the outside-in and has one vital and critical capability - identifying the customer segment(s) on which the company will focus.
(5)	The business model of our company includes actions and solutions that allow the implementation of a sustainable strategy, through effective use and reconfiguration of company resources, interaction between all participants in the vertical chain, creation of a new product based on the circular economy principle.
(6)	Innovation and stakeholders are the link between the business model and the sustainable development of our company.

Appendix 2

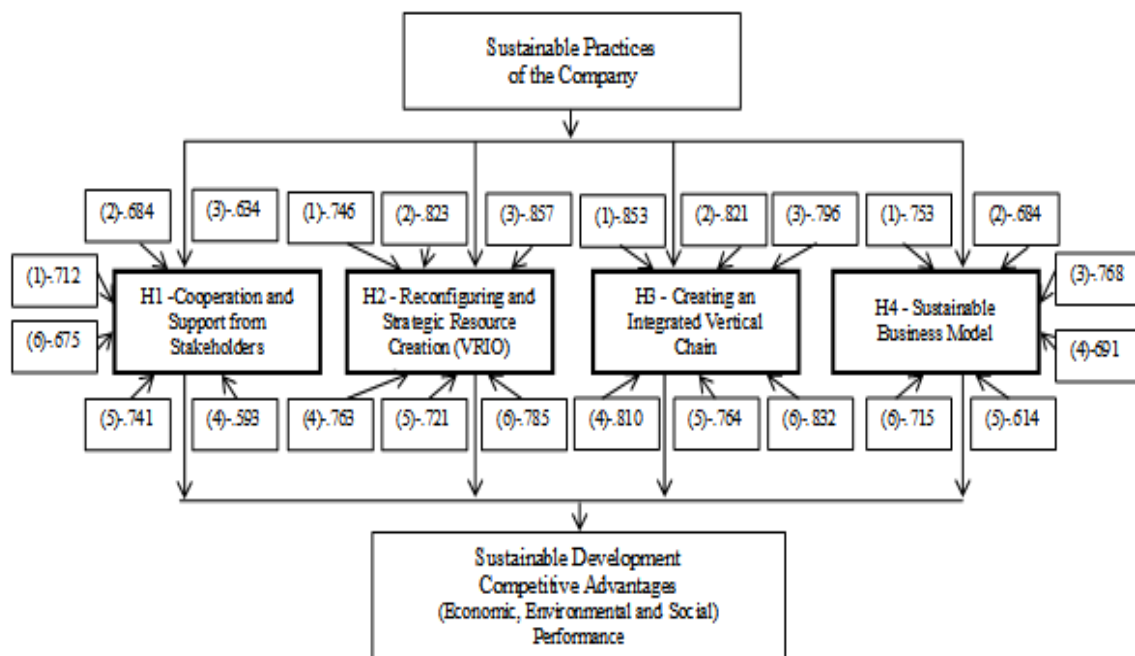


Figure 3. Impact of each individual component (included in the study) on common sustainable practices and their indirect impact on building competitive advantages and performance