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INVESTIGATION OF DISTINGUISHED APPROACHES TOWARDS SYNERGY*

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Abstract. The investigation of synergy is the initial impetus for achieving effective investments in sustainable organisational solutions. This article focuses on synergy phenomenon; various views across different areas are critically reviewed. The authors investigate two essential areas: synergy and synergistic effects. The main result is the identification of seven sources, or, as the authors call them, generalised approaches to synergies. The paper provides a new contribution to area of management of companies, which cooperate, and compete simultaneously. The obtained results may be instrumental for better strategic management of contemporary cooperating organisations.

Keywords: strategic management; cooperation; synergistic effects; investing in cooperation

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JEL Classifications: C7, J5, P13

1. Introduction

Synergy is a phenomenon of added value creation as a result of cooperation. We can observe the origins of synergy in many fields. According to Haken (1978), it originated in physics as a theory of the emergence of new cooperative structures in systems with nonlinear dynamics. Comprehensive theoretical review of research (Ivanička, 1997; Lasker et al., 2001; Vodáček and Vodáčková, 2009; Zrakova et al., 2017; Castañer and Oliveira, 2020) led to the identification of areas in which synergy occurs, and is part of them.

Synergy is found in such areas, as biology (changes in the quality of biological systems, the problem of selection, glucose, photosynthesis, solitons, cells - creating an impulse, the heart), chemistry (chemical reaction of substances - reaction systems, spatial and functional structures, thermodynamics), biochemistry (influencing the concentration of components), physics (oscillations in mechanical processes, spatial structures in

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hydromechanics, thermodynamics), management (management, dynamic systems with a lot of nonlinear relationships), economics and sociology. In economics, there are methods for measuring and capturing synergy (it provides mathematical, economic, and accounting models), functional theoretical models and market dynamics (relationship between supply and demand). Social processes are also one of the areas of synergy, presented in dynamics, temporal oscillations, modelling of social evolution and cultural behaviour. Synergy explains the emergence of today's complex systems in astrophysics and cosmology (the formation of galaxies and the universe). Ecological phenomena also have a synergistic nature: predator-prey interactions (antagonistic systems), symbioses, co-feeding interactions, ecological waves (systems, pests), Fick's laws of diffusion and many others. On the other hand, synergy is also manifested in technological and informational progress (computer languages and their application in robotics, the number of transistors on a microprocessor, the connection of hardware and software, and the parallel connection of computers).

The content analysis above pointed to several scientific fields in which synergy is observed and confirmed (biology, chemistry, physics, economics, management, sociology and others). This results in a broad area of action of synergy and synergistic effects. Therefore, it is necessary to specify the boundaries of the study.

A prerequisite for investigating synergy within the business environment, i.e. cooperative organisational forms, is a comprehensive and in-depth content analysis of the studied phenomenon - synergy, synergistic effect. It is essential to strengthening knowledge about synergy in the business environment, in which it is possible not only to find synergy but also to apply it as a method that supports cooperative organisational forms, and together with it, it is necessary to identify suitable elements for the strategic management of cooperation concerning the creation of a particular value, synergy and synergistic effect. From the synergy and synergistic effect research, it is possible to identify these concepts relatively accurately and determine their essence.

Synergy is a connection and involvement in cooperation within a specific environment in which this environment change develops and reacts. This connection is created by combining the properties of two or more elements between which mutual interactions occur (this is one of the essential elements of the essence of synergy). Controlled interaction connections ensure the achievement of synergistic effects (expected but also the incredible added value of cooperation) (Corning, 2006; Martin and Eisenhart, 2001; Liu et al., 2018; Priede-Bergamini et al., 2020; Stojkovic et al., 2021).

A synergistic effect is a value, an expected and unexpected result, or a state that arises within a particular environment. It represents value and the input-output substance of many events and changes in evolution. For example, for the company, it means its development forward. Within the state, it means cooperation and joining of businesses in a specific environment (Damodaran, 2005; Vodáček and Vodáčková, 2009; Liu et al., 2018).

When analysing the situation of the issue of synergy and the synergistic effect at present, several areas and disciplines are identified in which this phenomenon exists: interactions in biology, teleonomic selections, the development of society, cultural clashes, division of labour, political campaigns, cooperation (partnership), and others. We assume that synergy and synergistic effect has existed here since the very existence of the world in various forms, including contemporary ones, such as hidden agreements and cartels in modern politics (Ivanička, 1997; Zhou et al., 2021; Galkina et al., 2022). Synergy is found in different areas, while each scope represents a specific environment in which the investigated phenomenon arises. The research, therefore, needs a more detailed background. The research area is broad; therefore, the significant and hidden reasons for the emergence of the given phenomenon may remain unexplored.

According to Kaplan and Norton (2006), Dykan et al. (2021), synergy is an essential managerial concept based on coordinated cooperation. A combined synergistic effect indicates that the joint strategy is pivotal in overall corporate performance (Martin and Eisenhardt, 2001; Szolnoki and Danku, 2018). Interactive connection and

cooperative action between partial business units result in the creation of added value via a synergistic effect (Vodáček and Vodáčková, 2009; Ivanička, 1997). Due to the combination of various contributions of individuals in the system in question, it is necessary to manage and direct the synergistic effect, which can bring about its much higher impact. Synergy increases the bargaining position concerning company aggregations (Lozano et al., 2013).

Among the indicators of a non-cooperative environment, we can include the use of shared resources without one's contribution, imperfect information status, incorrect evaluation of the partner, high investments in the relationship, the emergence of conflicts, incorrectly designed and corresponding parts of the system, poor adjustment of the control mechanism and others. The changing market conditions, actors, capital investments, political situations and many other factors make the cooperative relationship a dynamic system defined for a certain period within the established boundaries. The goal of every collaboration is a particular benefit for one cooperating party, either parties or the entire community (Ju et al., 2020).

Based on our research in cooperation, we set the goal of exploring synergy and synergistic effects and deriving its basic approaches for application in the management of organisations.

The article is compiled from an essential examination of data from relevant sources focused on the issue and its depiction in the real world. At the beginning of the article, we discuss the basic concepts of synergy and its penetration into the cooperative management of organisations, which can be improved and more sustainable. The methodology chapter describes the methods used. In the literature review chapter, we dealt with the essential depiction of synergistic effects and synergy in the context of managing organisations and their occurrence. In the results chapter, we included and derived basic, repeatable approaches that can be used in the development and restructuring of organisations. In the discussions and conclusion, we summarised the basic seven approaches to synergies applicable in the management of organisations.

2. Materials and methods

The complex content analysis for this study must be defined as part of the procedure: determination of the investigated area (unit), a compilation of features, and development of a list of specific analytical categories (quantitative findings in interpretive analysis). The research can be further continued using other qualitative or quantitative research methods. We use the following methodology:

- a) summarise current knowledge in the researched area;
- b) reveal the topicality of the investigated issue;
- c) bring new expertise to the scientific field (i.e., identify the studied phenomenon, categorise the investigated phenomenon, and create suitable identifiers for further investigation of the phenomenon);
- d) create conclusions in the researched area.

Inductive and deductive methods were used in data processing. In addition, we use a qualitative evaluation of the collected data. It is mainly an experiential approach based on the knowledge and expertise of the authors. They keep a logical sequence, defining the structure and progress of the work, combining and sorting the ability found and the author's polemic on the findings.

This article has two research tasks. Research task 1: Theoretical analysis of synergy and synergistic effects. The fulfilment of this task required a complex theoretical and practical analysis of the secondary data investigated in the area of synergy and synergistic effects. In the framework of synergy, and synergistic management, various views of essential authors are examined, as well as their research results and application of synergy in the environment. Furthermore, the categorisation of synergy and synergistic effects into areas of its action (approaches) is carried out.

Research task 2: Defining the basic approaches of synergy. In this task, it was necessary to use the acquired theoretical and practical knowledge and transform them into total outputs and discussions within the investigated synergy issue. Synergy research is used in the framework of identification of starting points for the creation of synergistic effects and synthesis of the obtained data. Subsequently, individual findings were combined through data synthesis, and the main conclusions of the investigation were determined - identification of 7 basic approaches to synergies.

3. Results

The following selected areas discuss specific synergy creation in different areas. These areas and the content of the previous chapters point to the starting points for creating synergy and strategic management. Individual examples allow observing how synergies were created. There were also specific barriers to creation. Synergy in particular areas not only had a positive effect and positive results but also pointed to possible parasitism, disadvantage of the other side or imperfect estimation of possible results. From the theoretical examination of the issue of synergy, it is possible to draw a partial conclusion that the creation of synergy can be conditional or unconditional.

It is essential to note that synergy depends on resources (tangible, intangible), processes, properties and characteristics of interaction elements through which potential synergistic effects can be realised. All results were influenced not only by the specific internal conditions of each researched area but also by those, as mentioned above, dynamic and turbulent environments created by the opportunities and threats of the globalised environment and individual interactions (direct and indirect links, externalities). Ivanička (1997) indicated four basic driving forces conditioning synergy or new values:

- Evolutionary material;
- Variability (recombination) of evolutionary material;
- Selection of new variants in the cooperation of system and environment;
- Fixing the choice (choice of structures ensuring the results of choice).

Factors affecting synergetic effects are the following: history, development of social conditions, the industrial revolution, division of labour, inventions, and trade exchanges. Cultural clashes are significant when acquisitions take place. Cultural conflicts usually, are inevitable when two large enterprises merge. The conflicts cause delays in getting synergy (Damodaran, 2005). Vodáček and Vodáčková (2009) notice that the cultural background impacts the atmosphere for managerial work in the company, which in turn affects motivation, strength and quality of interaction ties, and work results. Synergy in cooperation is manifested in partnership activities (actions). These actions can be strengthened by associating similar partners who share a particular point of view (a specific point of view) or provide the same kind of service (Cirjevskis, 2022). Synergy also manifests in thinking and actions resulting from cooperation and partnership relations with the broader community (a more complex and comprehensive view) (Lasker et al., 2001). Synergetic effects depend on the successful division of work. Lasker et al. (2001) combine the results of different authors and list the elements of the partnership that impact the partnership's ability to achieve a high degree of synergy. The authors consider the sources of synergy to be mainly financial and internal (i.e., money, premises, equipment, materials, skills, experience, information, connections with people and businesses, power of conviction, legitimacy and trustworthiness).

Synergy can be assessed by answering two fundamental questions (Damodaran, 2005):

- What form of synergy should be adopted? (Will it reduce costs as a percentage of sales and increase profit margin? Will it increase future growth or the length of the growth period?)
- When will the synergy begin to influence future flows? Synergy rarely shows up immediately; it is more likely to show up over time (cash flow).

Synergy can be influenced by four inputs to the valuation process: higher cash flow from existing assets (economies of scale), higher expected growth rate (market power, higher growth potential), more extended growth period (from increased competitive advantages), lower cost of capital (higher debt capacity).

The value metric of Vodáček and Vodáčková (2009) draws attention to the resulting synergistic effect of the interaction of relations with the market environment, in points:

- The prosperity of the company (successful implementation of the strategy, operation of operational plans);
- Stability of the company (balanced development of the company in the period of strategic plans);
- Entrepreneurial potential (balance of knowledge and capacity-resource assumptions);
- Prestige, customer credibility and others;

Strategic alliances as examples of the way to create synergistic effects.

Martin and Eisenhardt (2001) identified the coexistence of cooperation and competitiveness in business. They identified three interconnected, standard enterprise-level processes that became particularly characteristic of increasing market dynamism. They are processes:

- Knowledge movement between business units;
- Reconnecting within the changing network of business unit collaboration also includes knowledge exchange;
- Reconfiguration of business units and their lease related to changing market opportunities.

These processes create an internal market of cooperating enterprises and help the coexistence of cooperation and competitiveness in business. It also helps the managers be better acquainted with the issue, focus on changes in market opportunities, and take advantage of shared resources and the coordination of chances themselves.

Strategic alliances, according to Vodáček and Vodáčková (2009), are a significant example of partner interaction cooperation, which has prerequisites for the emergence of synergistic effects. We can characterise strategic alliances as cooperation between two or more separate enterprises for a common purpose, goals or problem-solving. One of the conditions for the functioning of alliances is the activation of potentially positive synergistic effects. A classic type of synergy arises here: the exchange of different activities or resources, what one partner has enough of, its strength, and what the other partner does not get or its weakness. However, the goals should be consistent in such groupings, for example, using the BSC method. When evaluating an alliance, it is not important how long it lasts but to what extent it meets or has met the expectations placed on it by individual partners.

We can see examples of synergistic effects in strategic alliances: in the framework of mutual exchange or sharing of production and non-production resources; in securing access to the necessary financial resources; in improving the current level of value metrics of delivered products and services; in improving the economy of production, circulation and sales; and as part of cost reduction for some business operations.

The conditions for the functioning of alliances (achieving synergistic effects) include: ensuring the coordination of partners' goals and activities - being able to harmonise partners' goals; creation of interaction links of positive cooperation and ensuring their functioning; activation of interaction links of positive collaboration and potentially positive synergistic effects of this cooperation - reduction of the consequences of earlier antagonistic cooperation; creation of coordination mechanisms; making allies; sharing problems and resources to manage issues; sharing in shared good and bad outcomes; acquiring "self-control" and the ability to dampen conflicts.

3.1 Seven basic approaches to synergy

By induction of individual outputs of essential authors and with the help of synthesis, Table 1 is created, which points to the generalised approaches of synergy and synergistic effects (focusing on the reality of the investigated phenomenon and a closer description of synergy and its forms). From this overview, it is possible to identify the result that synergy exists within normal conditions. It also influences the area of the investigated issue - the

emergence and creation of synergy and synergistic effect within cooperative organisational forms using appropriate strategic management. In further research, it will be necessary to focus on their connection with strategic direction using the identified elements of strategic management. This output also identifies seven synergy approaches (Table 1).

Table 1. Selected authors' approaches and attitudes to synergy and synergistic effect.

Approaches	Authors
Cooperation, combined effect, partnership Coordination of cooperation within cooperative management (management of a group of enterprises; linking of the management of subsequent processes; coordination of strategies; common strategy).	Corning (2006); Lasker et al. (2001); Martin and Eisenhart (2001); Damodaran (2005); Kaplan and Norton (2006); Vodáček and Vodáčková (2009); Foster et al. (2021); Dykan et al. (2021)
Increasing resulting cooperation effects (performance, profitability, problem-solving) Performance within the strategic management of the system Sharing of information and knowledge Resource recombination – management of business activities, such as capital allocation, development and sharing of human, information and organisational capital Distribution of performance within the size or participation of the enterprise in joint activities Diversification of costs and risks	Ansoff (2007); Corning (2006); Lasker et al. (2001); Martin and Eisenhart (2001); Damodaran (2005); Kaplan and Norton (2006); Knoll (2008); Vodáček and Vodáčková (2009); Manrique et al. (2021)
Joint bargaining power: joint effects of enterprises against environmental influences	Corning (2006); Vodáček and Vodáčková (2009); Cao et al. (2021)
It produced a typical result within concretely defined boundaries that support the existence of environmental actors	Damodaran (2005); Ansoff (2007); Vodáček and Vodáčková (2009); Koman et al. (2022); Santos (2021)
The complementary, independent effect of each subject within mutual interactions	Liu et al. (2018); Priede-Bergamini et al. (2020)
A random factor as a stimulus for qualitative change	Zhou et al. (2021)
Unpredictable combination of work performed by actors regardless of outcome (convergence)	Damodaran (2005); Castañer and Oliveira (2020); Gupta (2021)
Causal relationship: a more significant number of individuals can achieve an effect (do things) that a smaller number cannot (an individual does not create this effect)	Corning (2006); Damodaran (2005); Sirower (2007); Szolnoki and Danku (2018)
Interaction action: mutual interaction of individual subsystems, for example, in production, supply-customer process and others	Kaplan and Norton (2006); Ansoff (2007); Ivanička (1997); Damodaran (2005); Vodáček and Vodáčková (2009); Varmus et al. (2022); Turner et al. (2022); Yarosh-Dmytrenko et al. (2022)
Combination of functional properties of individual parts (complementarity)	Damodaran (2005); Kaplan and Norton (2006); Ansoff (2007); Corning (2006); Vodáček and Vodáčková (2009); Xua and Haob (2021)
A sudden change in system state or properties	Corning (2006)
Newly discovered structures	Corning (2006); Peterson and Zeng (2020)
The evolutionary approach in the framework of survival and future development (internal property of the system)	Corning (2006); Ivanička (1997)
Different or negative results from planned (desired), but also unexpected	Corning (2006); Kaplan and Norton (2006); Ansoff (2007); Vodáček and Vodáčková (2009); Xinghua et al. (2021)

The following approaches to synergies point to their complexity and interconnectedness within the investigated world. The "Seven Basic Approaches to Synergy" represents the induction of comprehensive synergy research and describes the unification of the individual researched areas of synergy. Based on the content analysis of the authors' secondary research in this chapter on synergy, it is necessary to create seven basic approaches to synergy:

- Approach to synergy within nature
- Synergy as an evolutionary approach
- Synergy as something new, newly discovered
- Synergy as cooperation

- Approach to synergy as an interaction effect
- Approach to synergy as a higher value
- Approach to synergy as the framework for strengthening the business environment

3.1.1 Approach to synergy within nature

According to Corning (2006) synergy in biology expresses combined effects produced by two or more particles, elements, parts or organisms. A definition of synergy from the field of sociology points out that collective enterprise is a space of synergy of individuals, where achieving a common goal is a possibility of attaining individual goals. From the point of view of medicine, synergy is a process in which two muscles, organs, substances or components work simultaneously and cooperate to improve the whole's function and increase its effect and performance (Morasso et al., 2010)

Synergetics can be described using one formalism as a large class of complex systems (complex synergistic system).

Synergy is the value created and captured over time through the sum of business performance relative to what would have been developed separately (evolutionary approach). The existence of an effect of collaboration on variance in a business performance captured by factors associated with membership in different stores within the association shows that synergy exists in business (Martin and Eisenhardt, 2001). Ivanička (1997) points to synergy as proof that time, change, evolution and history are essential in the inorganic, organic and social world. Here we get to the current understanding of synergy, the choice of the right tools for managing cooperation, knowledge management and the ability to see ahead not only organisational shifts, shifts in strategies, trends, global problems, and digitisation, but also development requirements.

The causal role of synergy depends on the success of survival and evolution. However, the development trajectory has shifted causal dynamics inexorably away from autocatalytic phenomena and towards purposeful and functional phenomena. Accordingly, the future lies in self-determination – that is, it is based on information and purposeful innovation. Here we can safely predict that new forms of synergy will play a key role(s) in shaping our future development.

3.1.2 Synergy as something new, newly discovered

Environmental changes, the development of science and technology, evolution in all directions and areas, and the activities of humanity create a dynamic environment in which every function, equation and variable has a random factor that we cannot influence. Corning (2006) enriched the previous definitions with one crucial thing. He considered synergy as combined or cooperative effects created by two or more particles, elements, parts or organisms. Still, at the same time, they are effects that cannot be obtained in any other way.

Ivanička (1997) states synergy reflects newly discovered properties such as dissipative structures, bifurcations and phase transitions. These properties are linked to the specific behaviour of the systems. Similarly, earlier Shannon (1998) pointed out that synergy is not only cooperation and exchange of resources but that by combining the individual perspectives (attitudes), resources and skills of the partners, the group together creates something new and valuable.

3.1.3 Synergy as cooperation

From the point of view of lexicology, the term synergy is derived from the Greek word "synergein", which means "to work together" - "to cooperate". According to Ivanička (1997, p.25) "the evolution and progress of a social system have its structure of global behaviour, which, after mastering the theory of synergetics, can be better identified and used in constructive approaches even in conflict situations."

Synergy is built on cooperation, the cooperation of two or more elements, people or companies, and therefore it is necessary to look at synergy from the perspective of cooperation strategy. Suppose company managers want to create a cooperation strategy. In that case, they must analyse the cooperation potential of the company, create a shared vision with partners and determine the orientation of cooperation. At the same time, it is necessary to deal with the tasks of building cooperation management, namely: transition to the concept of cooperation (requirements, activities); changing the view of cooperation (trans-formation into mutual relations within cooperation - long-term oriented); changes in the thinking of all parties involved (benefits of cooperation); measuring the achieved level of cooperative management building processes in enterprises; use of modern technologies.

3.1.4 Approach to synergy as an interaction effect

Corning (1995) pointed out that synergy is a theory about the causal role of relationships between biological phenomena. He points out that synergy is equally at home with two types: integration (aggregation, fusion, alliance of various kinds) and internal differentiation. Synergy also directs our attention to relationships with functional properties and fitness consequences (gaining advantages) of cooperative phenomena of all kinds – data linked to a causal explanation of the evolution of complexity (Corning, 1995). Synergy is an effect that individuals cannot achieve alone (Ivanička, 1997), since the structure in the world of synergy can be defined as an internal property of the system that ensures its integrity, functionality and evolution. It provides stability in given situations and progressive and effective transformations that enable it to adapt to new conditions and survive.

On the other hand, it is about ensuring effective transformation and solving new problems (survival) and interactions and interactive action. The authors Vodáček and Vodáčková (2009) focused on the interaction effect. They defined synergy as a change in the behaviour and properties of the system due to the creation of the interaction effect of its subsystems. The result of these interactions (joint binding action between subsystems) is a synergistic effect (the result of interaction action), characterising the difference from the situation when the considered subsystems would work without these interactions.

3.1.5 Approach to synergy as a higher value

Several authors created another group based on the finding: synergy is an effect (ability, performance, added value) higher than the sum of the individual results. According to Damodaran (2005), synergy is the added value generated by combining two businesses, creating opportunities that would not otherwise be available to independently operating companies. The existence of synergies generally means that a combination of businesses will become more profitable or grow faster through mergers than if the businesses were working separately. Here, assessing whether the merged companies have improved their performance (profitability and growth) relative to their competition is essential.

According to Sirower (2007), it also increases competitiveness and bottom-line cash flow compared to what both businesses expected to achieve separately. Knoll (2008) underlines that synergy is an effect that combines the profitability of the whole, which is greater than the sum of the revenues of the individual parts.

3.1.6 Approach to synergy as the framework for strengthening the business environment

Authors in the field of management define synergy as the value created by two cooperating divisions (enterprises), which is greater than the value that both divisions would make if they worked separately. Synergy occurs when cooperating subsystems can create a more significant effect than if they were trying to do it alone. Convincing evidence of the existence of synergy performance supports the fact of shared value and impact. The combined effect indicates that the collective strategy plays a focal role in overall corporate performance. The performance of collaborative groups is not only due to the unique industrial structure but also to the sum of the individual performances of the business units (Martin and Eisenhardt, 2001). In today's world, goals based on gaining an advantage cannot be achieved by one person, company or sector. They are based on cooperation and

synergy, which form the system. A system that is subject to economic and technological changes and becomes more competitive and specific (Lasker et al., 2001). Businesses from different industries with different but complementary capabilities link their capabilities to create value for end users.

Regarding the cooperation of individual divisions and companies to create synergistic effects, and added value, the authors Kaplan and Norton (2006) deepen their view of the Balanced Scorecard, which is known as a performance measurement framework for strategic planning and system management. Alignment is critical if a business is to achieve synergy through its business and support units. Accurate determination of the benefits of business alignment is made possible by a measurement and management system based on strategy maps and BSC systems. Ivanička (1997) also pointed out the harmonisation of the operations of enterprises and stated that new structures are not only an independent legacy of the previous structures of the system but also especially the legacy of the interactions of the system with the environment. From this point of view, synergy is based on the very functioning of individual enterprises together with the environment and only harmonises their action for the emergence of synergistic effects. They identify the creation of value-added synergy in a group of shared services business units managed by headquarters. Alignment is an ongoing process that begins when headquarters determines the value that creates synergy between operating units, support units, and partners.

3.1.7 Companies' synergy based on human capital

The decision of how to work with competing companies in a shared environment is based on efficiency concerning corporate goals. Strategic management of synergistic effects creates a cooperative aspect – a tool for achieving competitive advantage using jointly developed value. The result of interactions of cooperating enterprises is a synergistic effect, which characterises the difference from the situation where the considered systems would work without cooperative interactions. Knowing how to manage this environment is necessary to achieve synergy strategically. To a large extent, management depends on its executors - managers. Kaplan and Norton believe that approach is at the organisation's centre. Through integrated planning, human capital aligns its activities with the company's overall strategy. To maintain competitiveness, the company must apply for active communication programs with employees, their education, motivation and tuning of their activities with the strategy in the environment (Kaplan and Norton, 2006). Strict management settings (so-called orthodox) can have adverse consequences.

Human capital represents an essential element of the company for creating synergistic effects within the cooperation framework. That is why appropriate management skills in the strategic management of cooperatives play an active factor in influencing the control itself and deciding how to adapt to environmental changes. Slávik (2009) stated strategic direction as a modern and rapidly developing discipline that arose as a reaction to the new characteristics of the business environment. The starting point points to elements in systems that influence each other more or less, and their interaction determines the possibilities of their survival on the market. The alignment of strategy and business activities creates success and provides value from mutual synergy. If we can base the company's management on strategic management for synergy, we can build a company with a long-term perspective and growth.

4. Discussion

Using the induction of the individual outputs of the examined authors, we summarised the authors' approaches and attitudes to synergies and the synergistic effect. This output is also used in the identification of the Seven Synergy Approaches. The importance of finding new directions in the management of modern enterprises supports the idea of synergy and synergistic effect as a subject of investigation and reflection. Unifying individual views on the investigated phenomenon - synergy- represents identifying the Seven Basic Approaches to Synergies. The identified approaches can be combined; they can coexist or follow each other chronologically, and in some cases, they represent a relatively similar approach.

This division is limited by the current amount of examined sources within the scope of the survey so far; therefore, it is necessary to assume their possible incompleteness. These approaches can be found in different scientific disciplines and areas, so the division must be considered complete. Seven basic approaches to synergies (the generalisation was based on the study of scientific outputs of scientists (Ivanička, 1997; Shannon, 1998; Corninga, 2006; Lasker et al., 2001; Martin and Eisenhardt, 2001; Kaplan and Norton, 2006; Peterson and Zeng, 2020; Xua and Haob, 2021; Turner et al., 2022):

1. *Approach to synergy within nature*

Elements within a group, individuals within a group, and enterprises within an industry are built on specific basic functional properties and exhibit particular behaviour in the environment in which they exist. Synergy is found in these systems within their interactions as a basic form of the emergence of specific properties, abilities or statuses.

2. *Synergy as an evolutionary approach*

The causal role of synergy no longer depends only on random and unpredictable phenomena. Still, evolution has shifted to purposeful functions and interactions within elements between individuals, business entities, etc. These new phenomena realise the future of development as such.

3. *Synergy as something new, newly discovered*

The dynamism of the current environment allows the combination of different elements, individuals, and enterprises, which are characterised by various characteristics, abilities and resources - within such a diverse environment, synergy can create something new.

4. *Synergy as cooperation*

The joint work of elements, individuals, and companies within various conditions, approaches and situations, with the help of knowledge of the meaning and meaning of synergy, can make an evolutionary shift of cooperation within the framework of individual and global behaviour.

5. *Approach to synergy as an interaction effect*

Causal interactions between elements, individuals, and businesses point to additional results that individuals would not achieve on their own - this is the output of mutual exchange within the synergy and evolution of relationships.

6. *Approach to synergy as a higher value*

Synergy within individual and joint performance can create an opportunity for added value in higher performance, revenue, faster growth, and competitiveness.

7. *Approach to synergy as the framework for strengthening the business environment*

Interactions in the business environment within the framework of different management approaches, coordination of cooperation, shared strategy, harmonisation of subsystems, and competitiveness represent a mechanism for obtaining advantages that would only be achieved with the value created within the synergy.

These approaches to synergy represent its basic observed types of repeating patterns within the examined issue. They expand the view of synergy to something with larger dimensions (elements) and broader impacts (the result of reactions). Based on these approaches of synergy, it is necessary to point out its complexity and interconnectedness within the entire investigated world, in which there is life, reactions to changes, development towards the future and mutual influence of organic and inorganic objects within the framework of intentional or unintentional actions, during which deliberate or unintended results (values). One of the approaches is synergy within the business environment (Lasker et al., 2001; Kaplan and Norton, 2006; Liu et al., 2018; Xinghua et al., 2021), which confirms the topicality and importance of researching the chosen topic of the work. Based on these approaches, we can infer the dynamic nature of synergy, which can act as a stimulus for new events.

An investment approach to confirm advantageous cooperation bonds

The study of the obtained information about IBM confirms that precisely the company's clearly defined mission and values support the company's strategy and critical competencies and create the company's growth potential. An essential element of IBM is its CEOs - leaders. They ensure and create a long-term relationship with all company actors. They see this relationship as a personal investment, not just a business. These leaders can implement the chosen strategy while adhering to the company's values.

At Intel, relationship maintenance and development (adapting to change) are essential to Intel's cooperative relationships. We identified agreements that led to priority delivery of products (ahead of the competition). The results of the cooperation relationship were earlier delivered to the cooperation participants and later to other competing companies (customers). This development is continuously transitioning from old technological infrastructures to new ones (Industry 4.0, IoT, Big Data, cloud services). Interaction processes in product development and production are at a high level. A high degree of process interconnection will ensure a better result. Intel strives for this in cooperative relationships, and the success of individual collaborative relationships, as well as the financial results themselves, is proof of that. The organisational structures of respective companies linked financial and human resources in the area of high investments and knowledge within the framework of joint activity.

Tesla has achieved significant achievements in cooperative relations, which are identified in the studied cases: innovative battery technology (Panasonic), innovations in design and production processes (Lotus and Toyota), licenses for security systems (Lotus), securing and expanding production capacity (Lotus, Toyota), development assistance in the field of batteries and chargers for the electric drive (Daimler), subsidies replacing the high initial investment of purchasing an electric car (Norwegian government, Netherlands, Germany, Finland, Austria, and other countries), supporting investments in the development of electromobility (European Union), building your charging network with various parties such as hotels, restaurants, shopping centres, airports and others (targeted charging).

Our research's novelty lies mainly in identifying theoretically defined synergistic approaches in actual practice. The analysed examples represent high competitiveness and are significant in the economy, product innovation, effective management, and marketing. The availability of analytical data on these examples allowed us to identify their association with individual positive synergies more precisely. The structured information on the analysed cases is of interest to business practice. According to the explanation of synergies, it is possible to be inspired and use the described methods strategically and tactically. The understanding of working with positive synergies in business can also be used for strategic management planning, decision making and developing marketing strategies and concepts. Our research has several significant limitations. The selected examples were analysed according to the available information. There was no direct observation or generation of primary data for each example studied. The synergies in each sample were identified based on logical reasoning, logical comparison and explanation. The number of examples needed to be increased. This was compensated for by their significance and using more qualitative analysis and research approaches.

Conclusions

Synergy and synergistic effects are everywhere. On the one hand, individual examples, allow to understand how synergies are created; on the other hand, specific barriers hindering reaching synergies can be revealed. Cooperation can result in parasitism, and have other disadvantages, such as occurrence of various risks or unnecessary investments. It means that the consequences of cooperation can be positive, negative or zero - it is essential to choose a criterion for evaluation and think of the resulting impact of the interaction action. The estimated effect should condition the amount and frequency of the investment in the cooperative relationship.

Seven direct synergistic effects depend on investment resources (tangible, intangible), processes, properties and characteristics of interaction actors through which they can be realised.

Thanks to investments in cooperative relationships, businesses can achieve various synergistic effects and reduce the risk of negative cooperation results. They can use a shared environment (advantages) but compete and thrive with each other. The new trend in cooperation is the search for ways to maximise profits and reduce risk. On the one hand, businesses create pooled connections; on the other hand, they compete with each other - thus creating competing alliances.

Synergy represents a new contribution to management of companies, which cooperate, and compete simultaneously. The obtained results may be instrumental for better strategic management of cooperating organisations.

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