ORIGINAL PAPER

DOI: 10.26794/2220-6469-2024-18-3-33-46
UDC 338;334.75;65.01;658(045)
JEL L20, L22, M11, M19, M21, O31, P13

Business Ecosystems: Specific Features of Organising Interactions and Communications

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ABSTRACT

The article is devoted to the creation and evolution of ecosystems, the peculiarities of their functioning, the control and communications management. The main characteristics of ecosystems are considered as: modularity, network structure, different types of partnership and competition, complementarity, interdependence, self-regulation, joint value creation, coevolution, etc. Integrated communications create the most optimal conditions for ecosystems' functioning, ensure the consistency of participants' interactions, introduce a common culture, rules, basic values, ethics and communication style, which increases motivation and favourably affects the overall image. According to the authors, in the context of decentralised management, the role of compliance control for assessing and preventing compliance risks, as well as the requirements for the organisation of monitoring, is increasing. **The relevance** of the study is related to the rapid evolution of ecosystems and their importance for the economy, as well as difficulties in understanding the process of their creation and functioning on the background of the lack of scientific research on the organisation of integrated communications. **The purpose** of the article is to study the modern ecosystem management using the analysis of scientific papers, comparison, generalization, analogies, systematic and logical analysis. **The scientific novelty** is in the author's interpretation of the peculiarities of ecosystem functioning. **The practical significance** of the work is in the possibility of its use in the creation and improvement of ecosystems within the framework of sustainable innovative development.
Keywords: ecosystems; ecosystem approach; competitive partnership; innovation; platforms; compliance control; integrated communications; stakeholders; sustainable innovation management; sustainable development

For citation: **Lopukhin A.V., Plaksenkov E.A., Silvestrov S.N. Business Ecosystems: specific features of organising interactions and communications**. ***The World of the New Economy*****. 2024;18(3):33-46. DOI: 10.26794/2220-6469-2024-18-3-33-46**

INTRODUCTION

The term "ecosystem" was first used by prominent British botanist and ecologist Arthur Tansley, who challenged the existing concepts of "complex organism", "biome", and "biotic community". In his 1935 article, he noted that in an ecosystem, both living organisms and inorganic factors "are components that exist in a relatively stable dynamic equilibrium" [1, p. 306].

In addition to energy exchange, the circulation and processing of substances, and species diversity, the following properties of natural ecosystems can be identified: the interconnection and interaction of components; food chains and food webs; stability and vulnerability. All of these influence one another, ensuring the stability and functioning of the ecosystem as a whole.[1] It should also be added that ecosystems have integrity, self-regulation, succession (progressive changes, self-development, self-reproduction), and emergent properties.[2]

According to Robert Metcalfe's law, the value/utility of communication networks increases in proportion to the number of users. However, in practice, not all participants establish connections and interact with one another.[3]

Many evolving components of ecosystems are characterized by both autonomy and interconnection. The most encompassing type of relationship in nature is recognized as intra- and interspecies competition. Other forms of interaction include predation, parasitism, amensalism, and neutralism, although the latter is difficult to define through observations and experiments in natural conditions.[4]

American economist Michael Rothschild was one of the first to propose, in 1990, that the economy be viewed as an ecosystem within the framework of a new science — bionomics [2].

In 1992, M. Rothschild, in his book Bionomics: Economics as an Ecosystem, emphasized that, just like in an ecosystem, information and innovation play a decisive role in the economy. Similar to an ecosystem, the economy is self-organizing and does not require central management or control [3]. However, the term "bionomics" was perceived as too abstract and academic, and it did not receive further development.

In 1993, American researcher James Arthur Moore published an article titled Predators and Prey: The New Ecology of Competition, in which he proposed the application of an ecological approach to analyzing business processes. He wrote: "To expand the systemic approach to strategy, I suggest considering a company not just as a member of an industry, but as part of a business ecosystem that spans several industries. In a business ecosystem, companies jointly develop opportunities for new innovations: they work together based on cooperation and competition to create new products, meet customer needs, and, ultimately, implement the next phase of innovation… A business ecosystem, like its biological counterpart, gradually transitions from a random set of elements to a more structured community" [4, p. 76].

The term "business ecosystem" (BES) introduced by Moore has remained relevant in both theory and practice of management. The first ecosystems appeared in the IT business based on innovation clusters. Moore's concept is a direct transfer of biological ideas about competitive struggle into the field of innovation technology and value creation. Today, the interdisciplinary concept of ecosystems is considered the foundation of new economic relationships.

Given the infinite variety of ecosystems, in this article the authors use the term "business ecosystem" (BES) when distinguishing specific characteristics of platform, innovation, or other

[1] URL: https://nauchniestati.ru/spravka/vvedenie-termina-ekosistema-a-tensli-v-1935-godu

[2] URL: https://portal-slovo.ru/impressionism/36222.php?ELEMENT_ID=36222&SHOWALL_1=0

[3] URL: https://habr.com/ru/articles/4387/

[4] URL: https://ecoportal.su/public/other/view/965.html

alliances and collaborations of independent companies and organizations is not necessary.

International and Russian practices show that cooperation can take various forms: proto-cooperation, cooperation, collaboration, partnership, equity investment in venture capital, and other non-conflict ways of interaction with competitors.

Experts at Sberbank note that partnerships are typically based on the principle of complementarity or mutual supplementation, where it is more beneficial to jointly produce a product or service. At the same time, to expand demand, partners can create complementary products (demand complementarity), where the consumer receives several products or services almost simultaneously. Partnerships within ecosystems differ from traditional forms of inter-firm interactions.[5]

In turn, competition, as a multi-level process, can also have various manifestations: rivalry, mergers and acquisitions, coexistence, collaboration, up to integration of a particular type. That is, competition is not eliminated or weakened, but takes on new forms. Moreover, the determining factor is not aggressive rivalry between individual companies, but the competition existing within the collaboration/partnership of the BES, which generates new business models and changes the relationships between market participants.

ECOSYSTEMS AS A NEW MODEL OF VALUE CREATION

American scholars Douglas Hanna and Kathleen Eisenhardt note that firms in ecosystems balance between cooperation for value creation and competition for profit: "For example, while Universal Music and Apple cooperated to increase revenues, they competed for the share of this revenue and the associated profit. Cooperation and competition can also develop simultaneously and differently at multiple levels of the ecosystem: within components; between firms in the focal (main,— Authors' note) ecosystem; and among competing ecosystems. These characteristics complicate the balance between cooperation and competition among firms within ecosystems" [5, p. 10].

European researchers Michael Jacobides, Carmelo Cennamo, and Annabelle Gawer emphasize the importance of the modular architecture of business ecosystems (BES) (autonomy of participants,— Authors' note), which "facilitates the emergence of an ecosystem as it allows a multitude of separate but interdependent organizations to coordinate their actions without complete hierarchical subordination". According to them, "an ecosystem is a set of actors with varying degrees of multilateral, non-patented complementarities that are not fully hierarchically controlled" [6, p. 10].

In addition to decentralization of management and flexibility in development strategies, critical for the survival of BES are abilities borrowed from living nature, such as self-organization, self-regulation, and self-development, as well as properties like heterogeneity, adaptability, complementarity, emergence, co-evolution, and others.

Modular architecture allows the construction of BES in a variety of configurations. The multiplicity of options for combining modules that perform a wide range of previously incompatible functions complicates the process of classifying ecosystems.

It is practically impossible to provide an exact and comprehensive definition of "ecosystem management" against the background of the already existing dozens of variations, since BES have long been the subject of research in a range of disciplines: philosophy, ecology, economics, sociology, cybernetics, linguistics, psychology, political science, cultural studies, and other humanities, natural, and applied sciences.

The Bank of Russia, which regulates ecosystems in the Russian market, understands them as "a set of services, including platform solu-

[5] URL: https://sberuniversity.ru/sber-knowledge/about

tions, united by common resources, including customer data, and enabling users to receive a wide range of products and services within a unified process". It also notes: "At the same time, we do not plan to strictly adhere to this definition for regulatory purposes, as we believe it cannot be exhaustive, which, in turn, potentially creates risks of regulatory arbitrage". A platform, according to the Bank of Russia, is an information system that allows participants to interact, create, and exchange value.[6]

American scholars S.L. Vargo and R.F. Lusch argue that an ecosystem is a relatively autonomous, self-regulating system of participants who integrate resources, bound by common institutional mechanisms, and mutually create value through service exchanges [7].

Professor R. Kapoor from the University of Pennsylvania points out that a business ecosystem (BES) includes a set of entities that contribute to the value proposition for the user of the primary offering. At the same time, ecosystems possess the properties of "complementarity" and "interdependence" among participants [8, p. 9].

However, it is important to remember that each participant in a BES has its own goals. Professor R. Adner from Dartmouth College notes that as they gradually develop their capabilities and clarify their roles, they tend to align with the benchmarks set by the parent company, thus undergoing an alignment process. According to him, "an ecosystem is an alignment structure of a multilateral set of partners who must interact to realize the primary value proposition" [9, p. 40].

In a later article, J. Moore writes that a BES is "a key public good, which, like the concept of the business ecosystem itself and the definition of space, is both intangible and effective means of aligning the actions of entrepreneurs. The definition of a business ecosystem is essentially a plan for how contributions to the proposed system will be modularly distributed, and which firms will provide each element" [10, p. 36].

In the opinion of the authors of this article, ecosystem management is the distributed regulation of the process of mutually beneficial resource exchange among autonomous participants, including technologies, explicit and tacit knowledge, competencies and innovations, human resources, for the continuous creation of new values for consumers and added value for the BES.

Despite the vast diversity of business ecosystems, experts from the BCG Henderson Institute have highlighted several characteristics that distinguish them from other management models: modularity, customization, multilateralism, and coordination [11].

Analogies with biological ecosystems might help broaden the view of competition in the economic sphere and identify new models for multi-contour interfirm relationships. However, these analogies have limitations due to the inherent differences between natural and socio-economic ecosystems.

The main difference lies in the fact that business ecosystems are managed by people who do not always act rationally and are guided by logic and common sense. Often, intuition kicks in, leading to insights, inspirations, delusions, revelations, unusual analogies and associations, unconventional solutions, tacit knowledge, premonitions, foresight, confidence, and other unpredictable factors. The peculiarities of human thinking and behavior partially explain why a universally accepted understanding of the essence of BES, how they form, are coordinated, and managed, has not yet emerged.

PROBLEMS OF MANAGING RESOURCE AND INNOVATION EXCHANGE

Theorists and practitioners unanimously agree that the key feature of Business Ecosystems (BES) lies in their modular structure, in which autonomous/independent and functionally heterogeneous legal entities/actors constantly

[6] URL: https://cbr.ru/content/document/file/123688/consultation_paper_23062021.pdf

and non-linearly interact with each other. No two BES are alike; they are all self-organizing, self-regulating, and self-developing networked structures, which imply the presence of:

- a multitude of independent partners;
- a unified resource and technological base that significantly reduces participants' costs;
- a shared knowledge base for experience exchange;
- risk distribution among participants;
- an integrated communication system;
- compliance with agreed-upon rules, norms, and standards.

Each BES consists of several network substructures, which also form various groups of organizations, and the interrelationships between them can be both formalized and informal. According to the founders of BES theories, they are "intangible", "invisible", and inaccessible to holistic perception.

The participants/actors of BES, each with different corporate cultures, influence each other in unpredictable ways, continuously changing the configuration of interactions, which requires flexibility and rapid adaptation. The number of participants also changes, as they can alternate their roles at different stages: leader, active or passive participant, complementor, innovator, etc.

If risks of fragmentation by activity type, competency levels, culture, etc., hinder smooth operation within a BES, they are mitigated by strengthening the overall motivation through the implementation of unifying goals, visions for further development, and shared values, culture, and ethical codes of relations. Participants/actors who are unable or unwilling to engage in this process may be excluded or penalized.

Ecosystems based on new principles of less aggressive competitive interactions and relationships constantly reproduce a state of uncertainty. However, flexible and adaptive business models quickly respond to changes due to the mobility of the structural elements, the ability to eliminate the "weak link", the capacity to attract additional resources, and so on.

The emergence of diverse ecosystems — multiconnected, flexible, and dynamic — required the development and implementation of new management principles and models, which serve as an overlay, without eliminating existing regulatory levers but, in some cases, pushing them into the background.

All BES share common management principles, but the practices are completely different. For example, openness is crucial to the success of some BES but poses significant risks for others.

Vertical management models have become flat and polycentric, and the development of horizontal and diagonal links promotes innovation and self-organization among BES participants.

Network Relations in BES are coordinated not only through contractual agreements but also through standards, norms, monetization rules, behavioral protocols, data ownership rights, etc.

The company that organizes the BES (also called the parent, core, key company, central hub, orchestrator, etc.) makes and implements management decisions and performs various functions: strategic, delegating, informational, competence-based, motivational, social, providing, distributing, and team-building.[7]

Orchestrators must create an effective management model — a set of explicit or implicit structures, rules, and practices that define and manage the behavior and interaction of BES participants [12].

One of the main goals of managing a platform ecosystem is to balance the trade-offs related to controlling the core technology — a key problem in organizational design [6].

The popularity of BES is growing despite numerous failures that occur during their

[7] URL: https://www.itweek.ru/digitalization/article/detail.php?ID=206814

creation and development. Researchers from the BCG Henderson Institute analyzed the effectiveness of 57 ecosystems across 11 sectors in various geographic markets and found that fewer than 15% of them are sustainable in the long term.

The most common cause of failure (34%) was the incorrect choice of management model [13].

Another article from the BCG Henderson Institute states: "Business ecosystems tend to make various types of management errors. Many ecosystems struggle because they choose too open a management model… Others fail due to a management model that is too closed… Some business ecosystems experience difficulties because they cannot control bad behavior on their platforms…"

Table

Ecosystem Management Framework

Elements	Aspects	Key Questions
Mission	Goal	What is the overall goal that aligns/connects all ecosystem stakeholders?
	Culture	What common set of values guide the ecosystem's stakeholders?
Access	Entry Commitments	Who can participate in the ecosystem and under what conditions? What level of exclusivity or specific co-investments is required?
Participation	Decision-making Rights	How are decision-making rights distributed among the ecosystem stakeholders?
	Transparency	How transparent are the governance model and strategic roadmap?
	Conflict Management	How are conflicts between ecosystem stakeholders resolved?
Management	Entry Control	What requirements govern the contributions of stakeholders?
	Process Management	How are behavior and interactions of stakeholders regulated?
	Exit Control	How are the products/services created by the ecosystem regulated?
Sharing	Data/Information Rights	What rules govern ownership, access, and use of data?
	Ownership Rights	Who owns the tangible and intangible assets created by the ecosystem?
	Value Distribution	How is the value created by the ecosystem distributed among stakeholders?

Source: BCG Henderson Institute. URL: https://www.bcg.com/publications/2021/how-to-manage-business-ecosystem

Another type of failure in management includes conflicts between ecosystem partners, particularly between the orchestrator and its complementors (additional participants — Authors' note). Early warning signs include complaints from complementors that the orchestrator is using its dominant position to impose unfair conditions on the ecosystem… Some BES receive negative reactions from consumers or regulatory bodies, indicating flaws in the current management that may jeopardize their operational license…

The success or failure of ecosystems in the market mainly depends on the rules of interaction, the nature of standards, and the quality of interfaces.

Based on the analysis of over 80 business ecosystems from various sectors of the economy, experts from the BCG Henderson Institute developed a comprehensive management framework for them (see *the Table*).

The innovative component is present at various scales in almost all types of business ecosystems, which is why ecosystems combine two different types of activities: research (innovative) and commercial (operational). In the "Sber" ecosystem, they went even further and, in the second half of the 2010s, introduced the concept of a trimodal organization. In early 2023, Sber's president and chairman, Herman Gref, noted: "In any organization, there are three ways to carry out activities — we call them run, change, and disrupt. Run refers to process management, where the same operation is repeated every day. Change refers to project management. The third component is disrupt, which is innovative activity".[8] These modalities are characterized by different corporate cultures: intolerance to mistakes, a desire to experiment, creativity, tolerance for errors, and a willingness to lose money.

It is important to emphasize that conventional control methods are insufficient or do not work for ecosystems. Since BES combine independent actors, individual participants do not have access to control the entire ecosystem. BES cannot be fully managed and controlled hierarchically due to their modularity, variability, and boundlessness, as it is impossible to identify the entire ecosystem space at once, and it is difficult to fully cover the numerous network interactions of an unlimited and changing number of participants.

Therefore, compliance control (from English compliance — conformity, observance, obedience) is most effective in ecosystems. It evaluates and prevents compliance risks that arise from non-compliance with laws, rules, standards, and ethical norms, including internal ones. This is achieved through regular monitoring of all possible interactions and performance indicators of BES, followed by analysis and management actions, such as restricting access to certain resources (it is important to document the key data from monitoring). However, if control becomes excessively rigid and is exclusively the prerogative of the BES organizer, it may turn into a supply chain and lose all of its advantages.

MAIN TRENDS IN THE DEVELOPMENT OF SUBSTRUCTURAL COMMUNICATION ECOSYSTEMS

Any organism, like an organization, exists due to its ability to receive, use, store, and transmit information. However, the term "communication" is rarely found in scientific publications on the organization and management of business ecosystems, both in Russian and English, except in a few studies on the promotion of innovative BES. The goals and tasks of communication management are mainly discussed in the context of natural ecosystems, particularly regarding the involvement of different stakeholder groups in environmental protection activities.

At the same time, the term "interaction" is traditionally used in the description of ecosys-

[8] URL: https://stimul.online/articles/interview/gref-innovatsiy

tems, with the word "communication" being one of its main synonyms, playing a key role in ecosystem management.

One reason for the narrow use of the term "communication" is related to the fact that over a hundred years ago, German scientist Max Weber introduced the concept of "social action", which later evolved into "social interaction" and became dominant in English-language socio-economic studies.

In turn, communication, as the process of exchanging information and knowledge, involves interaction between its participants. Therefore, everything mentioned above justifies the occasional use of the terms "interaction" and "communication" as synonyms.

With the development of information technology, the concept of "communication" has expanded significantly, and its role in socio-economic reality has grown exponentially compared to interaction. However, researchers still prefer the latter, following established traditions.

In Russia, the lack of proper attention to communication and its undervaluation in management may be explained by the fact that when translating from English, people tend to choose the first translation option offered by dictionaries rather than one that more closely aligns with the meaning of the word. Additionally, many still perceive communications as a supplementary resource without productive value or a financial dimension.

Nevertheless, we have found no scientific research containing principles and recommendations for creating adaptive systems for the organization of integrated communications within ecosystems. A number of works contain general principles and rules for interacting with partners and stakeholders, some of which are provided above. We will attempt to fill the gap in understanding the role of communications in ecosystem management.

At the very end of the 20th century, several American authors proposed, in addition to the ecological approach, the stakeholder approach [the term "stakeholder" is translated in Russian scientific and managerial literature as "interested party" or "influencing group"]. Through its use, ecosystem management combines ecological, socio-economic, and institutional knowledge and priorities through the participation of various stakeholders. Shareholders and stakeholders determine the architecture of the business ecosystem, partnership conditions, rules of interaction, and communication.

It is also important to note that the stakeholder approach unites ecosystem management and the concept of integrated communications (IC), in which interaction with stakeholders plays a key role. The participation of stakeholders has become even more relevant in the formation of BES, with an emphasis on long-term relationships with all stakeholder groups.

Nelly Bachurina, an associate professor at the Department of Integrated Communications at the National Research University Higher School of Economics, defines IC as follows: "It is a multidisciplinary strategy of variable media and structural coordination of communications with stakeholders, affecting their perception of all information about the organization as a whole". IC includes advertising, marketing, public relations, corporate culture, corporate design, etc. [14, p. 32].

One of the main innovations of Integrated Communications (IC) is that while communication used to focus on consumers and partners, now interaction and communication occur with all groups of stakeholders whose interests are, to some extent, affected or could be affected by the activities of companies and organizations.

In other aspects, IC also most closely aligns with the ecosystem management model. Furthermore, the self-producing and continuous flow of information in companies and organizations is, in itself, an ecosystem of communication.

Similar to an ecosystem, integrated communications unite and coordinate various modular structural elements that autonomously perform

functions such as advertising, marketing, public relations, product promotion, reputation management, branding, and more, in interaction with all stakeholders (target audiences — TAs). IC implies an equal approach to all TAs: shareholders, staff, consumers and clients, partners, investors, and other stakeholders.

Modern technologies enable omnichannel communication (from Latin "omni" — all, every). Unlike multichannel communication, omnichannel is a unified system of continuous, seamless interactions through different channels, preserving the history of communication, which becomes one of the main areas of development for platform-based and other BES.

Such unified communications (UC) allow business processes between partners to be linked within a single digital space, both for coordinating work teams and for communication with clients.[9]

We propose viewing IC as a localized communication ecosystem, a component of BES, in which all stakeholder groups are participants. In other words, IC acts as an ecosystem substructure within BES.

Another key task of the unified communication organizer in BES is to create key messaging (KSM). After decomposing the target audiences by functions, interests, goals, and expectations, considering factors like education, competencies, etc., a personalized KSM is prepared for each of them in a language understandable to the recipient and written in the appropriate style, sent through individually selected channels.

The main task of KSM is to convince the recipient to change their behavior, obtain information, influence activity, decision-making, etc. The result of communication is mutual understanding or its absence, which determines the prospects for possible interactions and affects the efficiency of the communication system and the entire BES as a whole. The communication strategy should include the values and meanings underlying the activities of enterprises and organizations.

The primary method for ensuring understanding of the messages transmitted to the recipient is to create an effective decision-making system based on well-established communications, with a dense network of corrective feedbacks, telling the sender how accurately the message has been perceived by the recipient [15, p. 46].

Equally important is to establish a system and define the procedure for establishing horizontal and diagonal communications (including informal ones) to exchange not only the necessary information for interaction but also knowledge, experience, innovations, and new ideas between BES participants and their departments. This will increase productivity, create more favorable conditions for innovation, and improve the overall atmosphere of partnership within the BES.

In an era of information abundance and oversupply, competition between BES in Russia for consumers' attention to products and services has significantly intensified, aiming to attract new users and retain existing ones. To capture this monetizable resource, various forms of entertainment, sensational headlines that do not reflect the content, etc., are used.

In the 2017 study "The Future of Communications" by the Russian Association for Public Relations (RASO), it is stated: "Competition for human attention will require companies not only to provide omnichannel communication but also a deeper integration into people's lives: offering them not just goods and services, but care, help with everyday tasks, while paying close attention to their emotional responses to each interaction".[10]

The properly organized exchange of information between participants in, for example, a

[9] URL: https://www.tadviser.ru/index.php/

[10] URL: https://raso.ru/research_raso/about_the_future_of_communications.

platform-based BES, forms its main asset — a large database of products and their consumers, which remembers the history of their interactions. Analyzing customer behavior enables forecasting their needs in order to offer products, services, and content that meet their demands. At the same time, populating the database of partner interactions allows for the adjustment of ecosystem standards and rules, improving management decision-making procedures.

Integrated communications (IC) are particularly effective in solving the problem of information asymmetry, where participants in BES have different levels of knowledge. Such uneven transparency breeds distrust among them, reducing the effectiveness of partnerships, increasing transaction costs, harming competition, and increasing the risks of unethical behavior and abuse. This is a serious issue, as K. Sarkar and F. Kotler emphasize, "trust is the currency of ecosystems".[11]

In the process of information exchange, it is crucial to minimize traditional management methods, such as concealing or limiting information under the pretext of protecting commercial secrets or the risk of losing data and confidentiality.

The process of transitioning from one management model to another, as practice shows, occurs gradually over the years in different countries. In a 2018 study commissioned by the Association of Independent Directors (AID) and conducted by the Center for Social Design "Platform", the question was asked: what management style do you think will dominate in Russian companies in the next few years? Over 100 AID members — independent directors, heads of Russian companies, and independent experts — answered as follows: 75% — directive management; 13% — entrepreneurial management; 11% — collegial management; 1% — other.[12]

Thus, managers accustomed to directive methods of control will likely continue as they are, as they fear change or are unwilling to complicate their work with coordination procedures and approvals, or to delegate authority to lower levels even for the sake of increased efficiency.

The integration of communications is hindered by the undervaluation of the role of information systems in management, the team-oriented behavior of leadership, the desire of long-established marketing, advertising, and public relations departments to preserve their autonomy and budgets (which reduces motivation for change), underdeveloped corporate culture, etc.

Therefore, the fundamental transformation in the form of communication integration is perceived by most department heads as a threat to their existence. Additionally, any changes are often viewed as situations of uncertainty, where people tend to make irrational judgments, decisions, and actions. Thus, it is necessary to highlight the discussed issues, show the advantages and possibilities of new management models, and the practical application of integrated communications.

The study by D. Hanna and C. Eisenhardt mentioned above showed that firms in ecosystems regulate the levels of interaction and competition during value creation to achieve profit [5].

Companies participating in BES, being autonomous, have their own communication systems that ensure internal interactions, public relations, media relations, and functions such as advertising, marketing, etc. They form substructural communication ecosystems within the BES, which compete with each other to varying degrees of honesty and integrity. Conflicts of interest may also arise if companies are part of two or more competing ecosystems.

While research on communications in natural BES addresses general communication issues,

[11] URL: https://www.marketingjournal.org/ecosystem-marketing-the-future-of-competition-christian-sarkar-and-philip-kotler/

[12] URL: https://pltf.ru/2018/12/19/korporativnoe-upravlenie-v-rossii-krizis-zhanra-i-nadezhdy-na-budushhee/?print=print

the authors found no studies on the application of integrated communications in business ecosystems, except for a few applied and descriptive publications. Given the above, we can conclude that communication systems within BES interact directly or indirectly with each other and may collaborate or compete to varying degrees — from unified communication policies to information wars.

The nature of interactions between substructural communication ecosystems primarily depends on the relationship between specific firms participating in BES, which currently defines the goals and objectives of communication systems (CS) and may change along with market conditions. Factors such as mutual understanding of coordinated actions, varying levels of competencies, mismatched corporate values, ethics, and culture also influence the possibility of integrating CS within BES.

Hybrid options are also possible, where companies compete on some issues or topics and cooperate on others in the information space. In relations between ecosystems, competition predominates over cooperation in the communication field.

In a networked, "invisible" organization, BES's functionally heterogeneous autonomous elements continuously interact with each other in a nonlinear and unpredictable way. Each partner/collaborator in BES has their own goals, knowledge, experience, technologies, etc. According to Oliver Williamson, Nobel laureate in economics in 2009, such a diverse array of social communications significantly increases the speed and variety of interactions and exchanges. This provides companies and organizations with much broader opportunities, such as increased flexibility and maneuverability, as well as the ability to self-organize and self-regulate to quickly adapt in the face of growing uncertainty [16, p. 87].

The integration of communications in companies and organizations is not limited to the unification of communication channels but encompasses all interactions coordinated by a central management system. Essentially, it involves creating a substructural communication ecosystem that aligns the functions of departments (press services, public relations, marketing, advertising, etc.) regarding interactions with departments, stakeholders, investors, partners, suppliers, consumers, etc.

The core of this system can be a committee, commission, responsible person, or group of managers coordinating in an ad hoc manner. The primary task is to organize the effective exchange of information and knowledge, during which the embedded meanings that serve the interests of business and society are accurately transmitted and perceived. To achieve this, strategies, norms, rules, standards/templates, key messaging, communication channels, and style specifics for each stakeholder group are developed.

These actions ensure the synergy of all departments and management bodies in the development and implementation of strategies and business plans, as well as in the processes of control, automation, risk assessment, and so on.

All of the above indicates that researchers should take an interest in the organization of communication interactions within ecosystems and between them, as well as study the potential for their integration for sustainable innovative development. This creates the most optimal conditions for BES's multitasking operations, significantly reducing many contradictions between individual information exchange directions and tools, forming them into a single unified message for target audiences, ensuring consistency of interactions, a common culture, communication rules and style, and improving the effectiveness of ecosystems in conditions of constantly reproduced uncertainty.

CONCLUSION

In conditions of growing uncertainty, the key priorities are maximum decentralization of

management, rapid adaptability, and flexibility in the face of continuous changes.

Instead of linear value chains, BES coordinate interactions between autonomous businesses that create value propositions or solutions. They form the most favorable environment for innovation and sustainable development, playing an important role in the growth of the Russian economy.

The authors have studied certain features of ecosystem management processes in detail and offer their own definition of it.

Ecosystems create unconventional content and forms of competition, adding to the long-standing battle for market share by introducing different types of competitive partnerships aimed at creating new value propositions through innovation, including in virtual space, driven by the digital economy.

The strategy of ecosystem leaders — organizers — sets the trajectory for the entire multi-agent community in the face of a dynamic and uncertain external environment, as well as unstable market leadership by both traditional and modern platform companies.

The limitless diversity of BES types, a variety of strategies, the characteristics of networked inter-firm and inter-industry interactions, the involvement of the same modules (companies and organizations) in different ecosystems, etc., indicate that the same rules and management decisions can lead to opposite results in ecosystems that are unlike each other.

A vertical control system is replaced by coordinating the activities of all BES participants through the establishment of adaptive rules, norms, and standards. The specifics of BES are reflected in the organization of compliance control, based on monitoring the maximum possible number of interactions and performance indicators of BES, which should ideally be carried out in a 24/7 mode due to the increased volatility of ecosystems.

The main task of ecosystem management is to reconcile the interests of stakeholders and coordinate the actions of diverse and varying partners from all industries. The effectiveness of this task is largely dependent on the implementation of an integrated communication system, which is optimal for the ecosystem management model, as it unites stakeholders through an approach that allows for aligning interests and coordinating actions among all partners. The authors view integrated communications (IC) as an ecosystem substructure within the framework of business ecosystems (BES).

The integration of communications creates a unified information space for interactions (including knowledge exchange), which ensures more effective cooperation and coevolution of BES. This plays a key role in realizing the competitive advantages of ecosystems in the process of creating and monetizing new values. Data banks have become an important resource and valuable asset for BES.

The underestimation of the role of integrated communications in Russia is related to the persistent adherence of many owners and managers to the administrative-command management model, their resistance to change, short-term planning horizons, rigid thinking, and a narrow worldview.

In our country, certain aspects of ecosystems, such as their ability to self-regulate, remain underexplored. Moreover, only general approaches to ecosystem management are described, without concrete methods for coordination, management, integration mechanisms, etc. This hinders the development of the ecosystem approach that meets current demands.

The authors have not found any scientific works dedicated to the organization of integrated communications in BES, so this article can be valuable for creators, participants, and clients of ecosystems, as well as for their researchers.

As the ecosystem approach spreads throughout the economy, the number of individuals with the corresponding mindset and shared values will increase. This means we can talk

about the emergence and evolutionary development of a new type of individual — the ecosystemic person (homo ecosystemus), one who has internalized certain laws of nature and sees themselves not only as a competitor in the markets of knowledge, innovation, goods, and services, but also as part of a collective effort. This individual replaces the "networked person" (network man), the "paradoxical person" (man of paradox), and the "confused person" (man of confusion) as a response to the increasing riskiness of society.

ACKNOWLEDGMENTS

The article was prepared based on the results of research carried out at the expense of budget funds on a state assignment to the Financial University.

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Conflicts of Interest Statement: The authors have no conflicts of interest to declare.

The article was received on 02.06.2024; revised on 29.06.2024 and accepted for publication on 15.07.2024. The authors read and approved the final version of the manuscript.