

ASERS

Journal of Environmental Management and Tourism

Quarterly

Volume IX

Issue 1(25)

Spring 2018

ISSN 2068 – 7729

Journal DOI

<http://dx.doi.org/10.14505/jemt>

 **ASERS**
Publishing



Editor in Chief

Ramona PÎRVU

University of Craiova, Romania

Editorial Advisory Board

Omran Abdelnaser

University Sains Malaysia, Malaysia

Huong Ha

University of Newcastle, Singapore,
Australia

Harjeet Kaur

HELP University College, Malaysia

Janusz Grabara

Czestochowa University of Technology,
Poland

Vicky Katsoni

Technological Educational Institute of
Athens, Greece

Sebastian Kot

Czestochowa University of Technology,
The Institute of Logistics and International
Management, Poland

Nodar Lekishvili

Tbilisi State University, Georgia

Andreea Marin-Pantelescu

Academy of Economic Studies Bucharest,
Romania

Piotr Misztal

The Jan Kochanowski University in
Kielce, Faculty of Management and
Administration, Poland

Agnieszka Mrozik

Faculty of Biology and Environmental
protection, University of Silesia, Katowice,
Poland

Chuen-Chee Pek

Nottingham University Business School,
Malaysia

Roberta De Santis

LUISS University, Italy

Fabio Gaetano Santeramo

University of Foggia, Italy

Dan Selişteanu

University of Craiova, Romania

Laura Ungureanu

Spiru Haret University, Romania

Contents:

1	Control of Technological Processes of Organic Fertilizers Application as a Tool to Ensure Food Safety Anatoly M. BONDARENKO, Edward I. LIPKOVICH, Lyudmila S. KACHANOVA	5
2	Investment and Liability on Oil Palm Land Use and Environmental Sustainability Ramlani Lina SINAULAN, HAMDI, Abdul RAHMAT	12
3	Mathematical Modeling of Formation of Transparency Regions in Supercooled Stratiform Clouds and Fogs Vitaly A. SHAPOVALOV, Aida A. ADZHIEVA, Lyudmila M. FEDCHENKO, Egor A. KOVALEV	17
4	Bioeconomy as Innovative Component of the Environmental Management Alina BRYCHKO, Svitlana LUKASH, Nataliia MASLAK, Olha KOVALOVA	28
5	Seasonal and Long-Term Features of the Distribution of the Vegetation Index NDVI on Arable Lands in Bryansk Region Gregory V. LOBANOV, Boris V. TRISHKIN, Marina V. AVRAMENKO, Anna Yu. CHAROCHKINA, Alina P. PROTASOVA	34
6	Enhancing Competence, Environmental Management System, Job Satisfaction and Employee Performance MULYANTO, I Gusti Putu Diva AWATARA, Ardi GUNARDI	40
7	Conflict of Altruists and Egoists. New Paradigm for Environmental and Social Sciences Victor A. SVETLOV, Nikolai M. SIDOROV, Anatoly G. EGOROV	46
8	Modern Condition of Locations of Municipal Solid Waste in a Residential Buffer Suburb of the City of Almaty Z.K. KALIASKAROVA, A.S. IKANOVA, Zh. N. ALIYEVA, A.A. BEKKULIEV	53
9	The Main Directions of Sustainable Development of Agricultural Production Baglan AIMURZINA, Mazken KAMENOVA, Ainura OMAROVA, Aldanysh NURUMOV, Galina PESTUNOVA, Ainur KARIPOVA	67
10	Influence of Environmental Technologies on the Economic Component in the Normalization of Thermal Conditions in Oil-Stores Vadim R. ALABYEV, Marina N. KRUK, Mariia A. KOROBITSYNA, Igor S. STEPANOV	75
11	Forecasting the Ecology Effects of Electric Cars Deployment in Krasnodar Region: Learning Curves Approach Svetlana RATNER, Marina ZARETSKAYA	82
12	Organizational and Economic Regulation of the Grain Market in Conditions of Sustainable Development M.O. LYSHENKO, N.O. MAKARENKO, V.V. MAKAROVA, V.A. MUSHTAY	95

Editor in Chief

Ramona PÎRVU

University of Craiova, Romania

Editorial Advisory Board

Omran Abdelnaser

University Sains Malaysia, Malaysia

Huong Ha

University of Newcastle, Singapore,
Australia

Harjeet Kaur

HELP University College, Malaysia

Janusz Grabara

Czestochowa University of Technology,
Poland

Vicky Katsoni

Techonological Educational Institute of
Athens, Greece

Sebastian Kot

Czestochowa University of Technology, The
Institute of Logistics and International
Management, Poland

Nodar Lekishvili

Tbilisi State University, Georgia

Andreea Marin-Pantelescu

Academy of Economic Studies Bucharest,
Romania

Piotr Misztal

The Jan Kochanowski University in Kielce,
Faculty of Management and Administration,
Poland

Agnieszka Mrozik

Faculty of Biology and Environmental
protection, University of Silesia, Katowice,
Poland

Chuen-Chee Pek

Nottingham University Business School,
Malaysia

Roberta De Santis

LUISS University, Italy

Fabio Gaetano Santeramo

University of Foggia, Italy

Dan Selişteanu

University of Craiova, Romania

Laura Ungureanu

Spiru Haret University, Romania

ASERS Publishing

<http://www.asers.eu/asers-publishing>

ISSN 2068 – 7729

Journal DOI: <http://dx.doi.org/10.14505/jemt>

	New Methods of Assessing Damage from Environmental Pollution	
13	Vladimir GRACHEV, Andrey NOVOSELOV, Irina NOVOSELOVA, Olga PLIAMINA	105
	Organization of Healthy Catering in Russian Universities Using Vending Technologies	
14	M.A. BELYAEVA, S.P. BURLANKOV, A.A. GAJOUR, V.I. PEROV, A.Yu. SOKOLOV,	114
	Modelling of Sustainable Development	
15	Natalya YEMELINA, Ainura OMAROVA, Kurmanalina ANARA	124
	Salt Composition of Clay Soils and Its Variation with Long-term Water Filtration in Republic of Kalmykia	
16	Anatoly A. DORDZHIEV, Anatoly G. DORDZHIEV, Mergen M. SANGADZHIEV, Leonid M. RUBEKO, Victor A. ONKAEV	130
	Sustainable Food Production and Strategic Management	
17	Salzhanova ZAURE, Ayazhanov KUANYSH, Gulzhan MUKASHEVA, Arynova ZHANNA, Gaukhar YESBOLGANOVA	136
	Economic and Legal Aspects of Environmental Safety	
18	Elena Valeryevna VINOGRADOVA, Maria Mikhailovna MUKHLYNINA, Dmitry Nikolaevich MUKHLYNIN, Natalia Vladimirovna SOLOVYEVA, Olga Yevgenievna LEBEDEVA	144
	Sustainable Development of Competitiveness of Meat Cattle Breeding	
19	Zhibek OMARKHANOVA, Zhanar AMANGELDIJEVA, Zhibek ABYLKASSIMOVA, Klara KHASSENOVA, Aissulu RAMASHOVA, Aliya KOITANOVA	151
	Formation of Ecosystem Marketing Concept	
20	V.D. SEKERIN, L.E. GORLEVSKAYA, A.Z. GUSOV, A.E. GOROKHOVA	160
	Analysis and Evaluation of Environmental Management	
21	Karlygash MUKHTAROVA, Dametken TUREKULOVA, Gulnara LESBAYEVA, Aigul YESTURLIEVA, Gaukhar SAIMAGAMBETOVA	167
	Environmental Performance of Retail Trade Companies in Russia	
22	Leonid Aleksandrovich BRAGIN, Gennady Gennadjevich IVANOV, Albina Nikolaevna MAYOROVA, Elena Aleksandrovna MAYOROVA, Alexander Fedorovich NIKISHIN	175
	The Use of a Risk-Based Approach in Safety Issues of Coal Mines	
23	Gennady I. KORSHUNOV, Marat L. RUDAKOV, Eugeny I. KABANOV	181
	Perspectives of Natural Biological Resources Development of the Arctic and Northern Territories of Krasnoyarsk Krai	
24	Denis Victorovich PARSHUKOV, Victor Nikolayevich NEVZOROV, Marina Anatolevna YANOVA, Elena Nikolayevna OLEJNIKOVA, Igor Victorovich MATSKEVICH	187
	Coopetitive Games for Sustainability of Global Feeding and Climate Change: Recent Developments	
25	David CARFÌ, Alessia DONATO	200

Journal of Environmental Management and Tourism is an interdisciplinary research journal, aimed to publish articles and original research papers that should contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences.

Journal will publish original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modeling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies, etc. This topic may include the fields indicated above, but are not limited to these.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in environmental management.

Journal of Environmental Management and Tourism is indexed in SCOPUS, RePEC, CEEOL, ProQuest, EBSCO and Cabell Directory databases.

All the papers will be first considered by the Editors for general relevance, originality and significance. If accepted for review, papers will then be subject to double blind peer review.

Deadline for submission:	15 th May 2018
Expected publication date:	June 2018
Website:	https://journals.aserspublishing.eu/jemt
E-mail:	jemt@aserspublishing.eu

To prepare your paper for submission, please see full author guidelines in the following file: [JEMT Full Paper Template.docx](#), then send it via email at jemt@aserspublishing.eu.



DOI: [http://dx.doi.org/10.14505/jemt.v9.1\(25\).20](http://dx.doi.org/10.14505/jemt.v9.1(25).20)

Formation of Ecosystem Marketing Concept

V.D. SEKERIN

Moscow Polytechnic University
Russian Federation
bcintermarket@yandex.ru

L.E. GORLEVSKAYA

Moscow Polytechnic University
Russian Federation
ludmila.gorlevskaya@yandex.ru

A.Z. GUSOV

Peoples Friendship University of Russia (RUDN University),
Russian Federation
526a526@mail.ru

A.E. GOROKHOVA

Moscow Polytechnic University
Russian Federation
agor_80@mail.ru

Suggested Citation:

Sekerin, V.D., Gorlevskaya, L.E., Gusov, A.Z., Gorokhova, A.E. (2018). Formation of Ecosystem Marketing Concept. *Journal of Environmental Management and Tourism*, (Volume IX, Spring), 1(25): 160-166. DOI:10.14505/jemt.v9.1(25).20.

Article's History:

Received November 2017; Revised December 2017; Accepted January 2018.
2018. ASERS Publishing©. All rights reserved.

Abstract:

Economic ecosystems were considered in the paper. The concept of ecosystem marketing was proposed and disclosed. The effective functioning of ecosystems facilitates mutual with the consumer and other interested parties creation of values, allows working quicker with less expenditures, with risk sharing, making reasonable decisions in the real time mode. Application of the concept of ecosystem marketing allows companies to gain competitive advantages under conditions of turbulent medium. The classification of ecosystems was proposed in such directions as business, socium, state and science. An ecosystem approach in marketing allows building effective interactions and acts as a way of achieving goals. The authors substantiated the formation of ecosystem flexibility as a strategic goal of the ecosystem marketing. The developed methodology of calculating the ecosystems' flexibility allows assessing their flexibility at different levels.

Keywords: ecosystem marketing; ecosystem flexibility; ecosystem business; modern technologies; consumers' involvement; mutual creation of value

JEL Classification: M30; M31; Q56; Q57.

Introduction

Today marketing operates in complex and quickly developing ecosystems, accumulating in themselves inner and outer resources. With the development of modern information and communication technologies, the role of ecosystems increases. Mutual creation of values, involvement of consumers, academic institutes, competitors and other interested parties allow working quicker with less expenses and a lower risk level.

Initially, the concept "ecosystem" was used as underlying in biology, representing a "combination of jointly living organisms and conditions of their existence, being in the regular interrelation with each other and forming a

system of interdependent phenomena and processes" (Giliarov 1986). It was introduced into the economic science by J. Moore, who defined a business ecosystem – "economic community, supported by the base of interacting organisations and separate persons – organisms of the business world" (Moore 1993). At the present time, in the academic literature there is a vast variety of ecosystems. B. Clarysse distinguishes business ecosystems, innovation ecosystems and knowledge ecosystems (Clarysse, Wright, Bruneel and Mahajan 2014). Besides, there are industrial ecosystems, ecosystems of health, labour resources and other ecosystems by a specific form of activity. The dominating quantity of appearing and actively developing ecosystems in recent decades has been connected with information and communication technologies (ICT) and branches close to them. Among them, there is a digital ecosystem, a mobile ecosystem, an ecosystem of consumer's involvement, a social system (for example, Facebook, YouTube, Instagram) (Vincent, *n. d.*), etc.

Economic agents function within the framework of numerous networks. At the individual level, the circle of contacts has enlarged significantly. Besides the current immediate environment, a human being can operationally interact with childhood friends, friends of their friends, former colleagues, interest friends, brands or companies by means of social networks, online messengers, etc. An average user of social networks has about 200 "friends" (Marketing: 96 Amazing Social Media Statistics and Facts 2016). It is possible to note that a high level of involvement of economic agents in the virtual environment allowed erasing time and space limits of communication.

At the company level, the growth of the interaction networks is connected with complication of the environment, the desire to share risks, to communicate with responsive groups of consumers in the virtual environment. The effectiveness of search, of outsourcing, as well as management of them, directly influences the results of economic activity and prospects of company development. The growth of the number of organisations, introducing crowdsourcing, platforms for communication of companies and target consumers, reflects its significance.

At the same time, in modern conditions, it is already insufficient to introduce agile-marketing (flexible marketing) aimed at organising the work of marketing departments and having become widespread in recent years (Martin 2015, 15 experts define agile marketing, *n. d.*), as well as to integrate all activities of the company. The use of the broadband Internet, mass distribution of portable devices – notebooks, smartphones, tablets, and then the appearance of cloud technologies and applications has fundamentally changed the environment (Business ecosystems come of age 2015). The focus of marketing influences is to be extended in the direction of formation and regulation of ecosystem flexibility.

1. Methods

The system approach, allowing a complex approach to solution of the urgent problem of enhancing the effectiveness of marketing activity, is used in the paper. A continuous change of the environment is supported by accelerated development of information and communication technologies. The ongoing increase of the speed of information dissemination, new media, a possibility of instant response of responsive groups of consumers, swift effect of separate events exert a direct influence on marketing activity of companies (Sekerin, Burlakov, Dzyurdzha and Gorokhova 2015, Dudin, Lyasnikov, Veselovsky, Sekerin and Aleksakhina 2014).

New developments, such as cloud technologies (cloud computing), the Internet of Things, Big Data, virtual/augmented reality, allow bringing the marketing activity of the company to a new level and increasing its marketing potential considerably. Creation and effective management of data platforms act as a competitive advantage of economic agents of all levels. It is important to note that a decisive role belongs not to collection and storage of data arrays, but to the algorithms of their processing, allowing one to conduct analytical work and make reasoned decisions.

Marketing automation, real and virtual environment integration act as a basis of organisation activity. Artificial intelligence in increasing frequency helps companies to interact promptly with users concerning standard questions, as well as it starts to be used for the tasks of a higher level along with several other technologies.

Despite the complication of modern business ecosystems, new technologies promote drawing together their participants. External environment of companies and their connections become more open and intimate. An open access to large volumes of information can entail both opportunities and threats. The importance of reputation of economic agents increases in the virtual environment. An employer can watch the profile and activity of the applicants for a certain post in social media. Partners and investors also pay attention to public data before making decisions. For instance, company's events or other news, having feedback in the social environment, can have repercussions. In this connection, professions, related to formation of image in the virtual environment, to management of users' communities, to development of algorithms of individual information formation, the style of its presentation and so on, become relevant (Atlas of new professions, *n. d.*).

Current tendencies promote formation of such marketing fields as influencer marketing, social media marketing, event marketing (for certain events), mobile marketing, digital marketing, geomarketing, search engine marketing, database marketing, reputation in virtual environment, etc.

Marketing interactions in the business ecosystem have a branched network. Companies direct marketing influences, receiving in response the results of interaction from responsive groups of consumers and a reaction of other participants of the ecosystem. Influences are characterised by different degrees, depth, duration of influence.

Market interactions are realised in the companies' networks, consumers' networks and in the networks of other persons and are directed by institutions and institutionalized norms. There are multiple levels of interaction, intersections, impositions of institutes. Integration of resources increases depending on the considered level – micro, meso or macro.

2. Results

In modern conditions, it is necessary to form the concept of ecosystem marketing, which represents a direction of marketing, realising its essence in the framework of business ecosystems, functioning in real and virtual environments, including existing and potential customers, leaders of opinions, suppliers, marketing mediators, competitors, investors, public leaders, regulating institutes and other interested parties.

Ecosystem marketing includes:

- conducting a complex analysis of contacts and interactions in the framework of the ecosystem;
- acceleration, systematization, accumulation, analysis and management of information;
- management of the complex "marketing-mix";
- planning, predicting and assessment of marketing interaction not only from the viewpoint of the financial result, but also from the positions of ecosystem change and its place in it;
- monitoring of emerging promising technologies and their introduction in one's activity;
- marketing analysis of ecosystem evolution at short-term and long-term levels.

Non-transactional behaviour of ecosystem participants becomes of particular importance. Measurement and use of indicators, connected with relations, satisfaction of responsive groups of consumers - WOM (word-of-mouth), e-WOM (electronic word-of-mouth), traffic, the time spent, registration, downloads, etc., are necessary. Their dynamics influence the revealing insights, company cost, prospects of development.

New media offer a wide range of opportunities for economic agents, require high proficiency and constant development of competences in this field. Their characteristics are interactivity, anticipation, mobility, wide spread, activity in real time, etc.

Depending on the degree of consumer involvement, it is possible to identify a number of indicators of assessment at each of the four levels (Table 1).

Table 1. Levels of involvement of target audiences and indicators of their assessment

Comparative tests	Indicators in virtual environment	Indicators in real environment
Participation	Frequency of visiting website, official pages of company in social media	Traffic in sale points, participation in arranged events
Interaction	Number of viewed pages and time spent on them, registrations, downloads of content	Time in sale points, using product testers, purchasing
Close contacts/intimacy	Receiving feedback on company's website, on official pages in social media	Monitoring customers' complaints, analysis of calls to product support services
Influence/ impact	Posts of responsive groups of consumers in personal blogs, profiles and other social media, e-WOM	Possible recommendations, WOM

Note: Composed by the authors based on classification "Forrester Consulting" (Forrester Consulting. How Engaged Are Your Customers? *n. d.*)

To develop knowledge in understanding the ecosystem approach, let us classify ecosystems in economy (Table 2). The classification is conducted by a number of criteria and four directions – business, socium, state, science.

Ecosystems intersect in multiple combinations, the place and the nature of contacts among elements – customers/consumers, leaders of opinions, suppliers, marketing mediators, companies of other sectors, competitors, investors, public leaders, regulating institutes, etc., change.

Table 2. Classification of ecosystems in economy

Classification criterion	Business	Socium	State	Science
by hierarchy	<ul style="list-style-type: none"> - project ecosystem; - separate enterprise ecosystem; - ecosystem of companies' group/sectoral ecosystem; - national business ecosystem; - international business ecosystem. 	<ul style="list-style-type: none"> - separate individual ecosystem; - household ecosystem; - regional community ecosystem; - national community ecosystem; - international community ecosystem. 	<ul style="list-style-type: none"> - ecosystem of separate officials realising state activity; - ecosystem of separate structural units; - ecosystem of state subdivisions; - state ecosystem. 	<ul style="list-style-type: none"> - innovation ecosystem of separate academic institutes; - innovation ecosystem of clusters; - regional innovation ecosystem; - national innovation ecosystem; - international innovation ecosystem.
by scope of activity	ecosystem of: <ul style="list-style-type: none"> - production; - commerce; - finances; - other services. 	<ul style="list-style-type: none"> - religious; - political; - educational; - cultural, etc. 	ecosystem of: <ul style="list-style-type: none"> - public health; - taxation; - labour resources; - education; - ecology, etc. 	<ul style="list-style-type: none"> - innovation ecosystem of services; - innovation ecosystem of agroindustrial complex, etc.
by the nature of emergence	<ul style="list-style-type: none"> - purposefully created; - self-organized. 			
by key technology or their combination	<ul style="list-style-type: none"> - digital ecosystem; - mobile ecosystem; - complex ecosystem, etc. 			
by speed of change	<ul style="list-style-type: none"> - with high speed of changes; - with average speed of changes; - with low speed of changes. 			
by environment of functioning	<ul style="list-style-type: none"> - virtual; - real; - mixed. 			
by degree of flexibility	<ul style="list-style-type: none"> - flexible; - average; - inflexible. 			

Source: composed by the authors

The ecosystem strives for development, enhancement of effectiveness of interconnections and productivity. It is characterised by flexibility, stability, coevolution supported by the dynamics of internal and external environments, by the integrated information network of interactions, by numerous and heterogeneous synergetic effects. The explanatory dictionary of the Russian language offers the following definition to the word "flexible" – "easily submitted to changes, reforms; adaptable to circumstances; able to solve different, frequent difficulties" (Ozhegov and Shvedova 1999, Explanatory dictionary of Russian language 1935-1940). The authors imply by ecosystem its ability to maximize a mutually created by the participants value in medium-term and long-term horizons of planning in the framework of constant, active changes of the environment.

The behaviour of participants of business ecosystems is best of all explained by variables related to profit, but many non-material characteristics of processes, such as relationships, knowledge, experience, convictions, risk perception, can also facilitate the explanation of the observed behaviour of ecosystem agents. The form and application of ecosystem models have evolved from predominantly general models to the increasing number of private models, adapted to needs and the structure of separate ecosystems. Rating systems based on score scales, as well as cost methods that are based on the effectiveness of reaction to changes and use of opportunities of increasing the values, can be used in the framework of assessing flexibility. An integral index of flexibility of separate participants of the ecosystem bases on the results of such constituents as team flexibility, management flexibility, financial flexibility, marketing flexibility, technological flexibility, logistic flexibility. For example, team flexibility determines reactions to organized changes in projects – time, rules, processes, the information structure, etc., as well as technological changes, such as technologies, equipment, instruments, IT infrastructure, programming languages. Reaction effectiveness and using opportunities in value terms are assessed as a degree of influence on effectiveness and productivity of the agent as compared to the variant when one lacks flexibility. Initiatives on

offering a wider range of choice, formation of complex propositions, adjustments, cancellation, etc. should be preliminarily assessed.

Assessment of ecosystem flexibility of higher order, including a multitude of economic agents, is conceived as a complex and many-sided task. Relative assessment of ecosystem flexibility can be conducted based on the rating system using score scales. At that, the ecosystem flexibility value will be equal to the sum of numerical scores of its participants' flexibility taking into account the interaction effectiveness of each specific participant in the ecosystem framework and one's share of significance in it. In a general view, the formula of calculating ecosystem flexibility can be presented as follows:

$$F_e = \sum_{i=1}^n F_i \times k_i \times z_i, \quad (1)$$

where: F_e - is the score value of ecosystem flexibility;

F_i - is the score value of the i -th participant of the ecosystem;

k_i - is the weight coefficient of interaction effectiveness of the i -th participant with others in this ecosystem;

z_i - is the specific weight or contribution of the i -th participant to ecosystem functioning.

As a rule, the size of the value of specific initiative on changing flexibility is of different value for ecosystem participants. Cost estimate can be represented as a sum of values, additionally and mutually created by the ecosystem participants.

$$V_e = \sum_{j=1}^n V_j, \quad (2)$$

where: V_e - is the cost value of ecosystem flexibility;

V_j - is the cost value of the value, additionally created by ecosystem participants by flexibility in the framework of the j -th project.

3. Discussion

Management in the framework of traditional limits of the company is unable to provide it with a competitive advantage in new reality. The technological process allows automating the relations among participants. By means of it, it becomes possible to control the openness of company limits. A high value of large data and their significant influence attract interest of market participants at all levels. Large data can be generated by users and by different networks of physical objects. In addition to state regulation at the level of separate countries, there are a number of associations, uniting key participants of the market – European BDVA (Big Data Value Association), American (American Association of Big Data Professionals), Data Management Association, Data Science Association, etc. Many researchers call data the “oil” of information economy. International Data Corporation (IDC) predicts that earnings from large data and business analytics in the world will grow up to the level of 50% for five years and will reach the value of 187 bn. dollars by 2019 (Worldwide Semiannual Big Data and Analytics Spending Guide, *n. d.*).

Among successful examples of using the recent achievements allowing automation of separate marketing processes, it is possible to point out such programmes as “Lucy” (Lucy lends a helping hand to marketing professionals, *n. d.*), developed by company Equals 3 in partnership with IBM, and “Albert” (Artificial Intelligence Software, *n. d.*) developed by company Adgorithms. Replacing the work of the full-fledged digital agency, the programme “Albert” showed disrupting results for a lingerie company Cosabella. For the first months of work, the current marketing budget was successfully decreased along with enhancing key indices of effectiveness – investment return increased more than three times; the growth of the consumers' quantity was 30% (Why Cosabella replaced its agency with AI and will never go back to humans, *n. d.*).

The ecosystem approach in marketing allows building effective interactions and acts as a way of achieving goals based on mutual creation of values. Purposeful formation of ecosystem flexibility is a strategic goal of marketing. Flexibility determines effectiveness of marketing influences in the ecosystem. The influence of ecosystem flexibility dominates considerably as compared to flexibility of separate economic agents in it. For example, unreadiness not only of the enterprise itself, but also of partners, of external environment frequently acts as one of the barriers, hindering introduction of innovative products at the enterprise. The quantity, variety, motivation of ecosystem agents, as well as available flexibility, influence its effectiveness.

Creation and development of IT-infrastructure of the ecosystem exert direct influence on its effectiveness. The issues of environment flexibility in relation to information systems have been widely presented in economic literature. A unique unified platform is an information centre which will provide a flexible approach to design and creation of values, to profit maximization of the ecosystem participants. Special attention should be paid to a continuous supply and updating of data, to development of algorithms of their analysis, to transparency and uniform knowledge of data, to the system of protection and control of access to data for separate participants. Duplication and territorial distribution of system components promote stable operation of the platform. At the same time, data are a basis for making decisions. Coca-Cola Company accumulates data in the framework of its own group using cloud technologies (Zeszut and Mitra 2016). It implements centralization from the viewpoint of unity of the information source for participants, understanding indicators, used analytical instruments. Decentralization occurs predominantly at the local level, where business subdivisions, partners can carry out tactical analysis, testings, optimisation of data to meet their own needs.

All in all, the Internet, mobile technologies, sensors and other technologies provide an integration mechanism of the ecosystem and evolve exponentially. In the first place, this is an economy of joint use (shared economy), the volume of which according to PWC prediction will increase more than 20 times by 2025 in Europe (PWC, *n. d.*). As a rule, the ecosystem evolves, adapts and integrates, erasing borders among sectors, meeting a wide range of interconnected needs, involving a multitude of interested parties both on a global scale and at the local level. Formation of a favourable environment in the framework of the ecosystem for emergence of start-ups, aimed at developments in the field of audience needs and absolutely new needs, perceived by the market, develops it, opens up new markets and niches. These processes facilitate the enhancement of strategic flexibility of the ecosystem.

In addition to tactical and strategic flexibility in the framework of ecosystems, technological, financial, logistic, managerial, behavioural, communication flexibility, risk-taking flexibility, etc. manifest themselves. Ecosystem flexibility can have a continuous nature, interrupt or fluctuate in time and space.

Automation of repetitive processes acts as one of the ways of increasing ecosystem flexibility. Many processes are not interrupted on weekends, holidays and in other off hours for employees. Automation allows studying market, introducing innovations more rapidly, meeting the needs of ecosystem participants to the fullest extent possible. An effective collaboration of robots and qualified creative people is a future of all economy sectors. Such modern developments as algorithms of artificial intelligence, technologies of virtual reality, drones, the Internet of things, robots, 3D printing allow enhancing flexibility of ecosystems and their participants.

Conclusion

Economic agents gain advantages when creating values, when they act as active participants of the ecosystem. Their collaboration becomes closer and more diverse, more adaptive and rapidly developing. An effective ecosystem is aimed at mutual creation of values, development of innovations, testing, scaling a successful experience and at quick service of the market.

Continuous processes of many-sided connections among business, socium, state and science are especially important in the context of ecosystem marketing since it implies renewed attention to adaptive, but not prescribing approaches. The use of modern technological platforms allows operating a large volume of topical relevant information, automating processes, attracting a great number of participants of the ecosystem to co-designing goods and services, providing mutually beneficial cooperation, reducing expenses, sharing risks, reducing the time of development and market entry, raising the level of service and ecosystem effectiveness

Acknowledgment

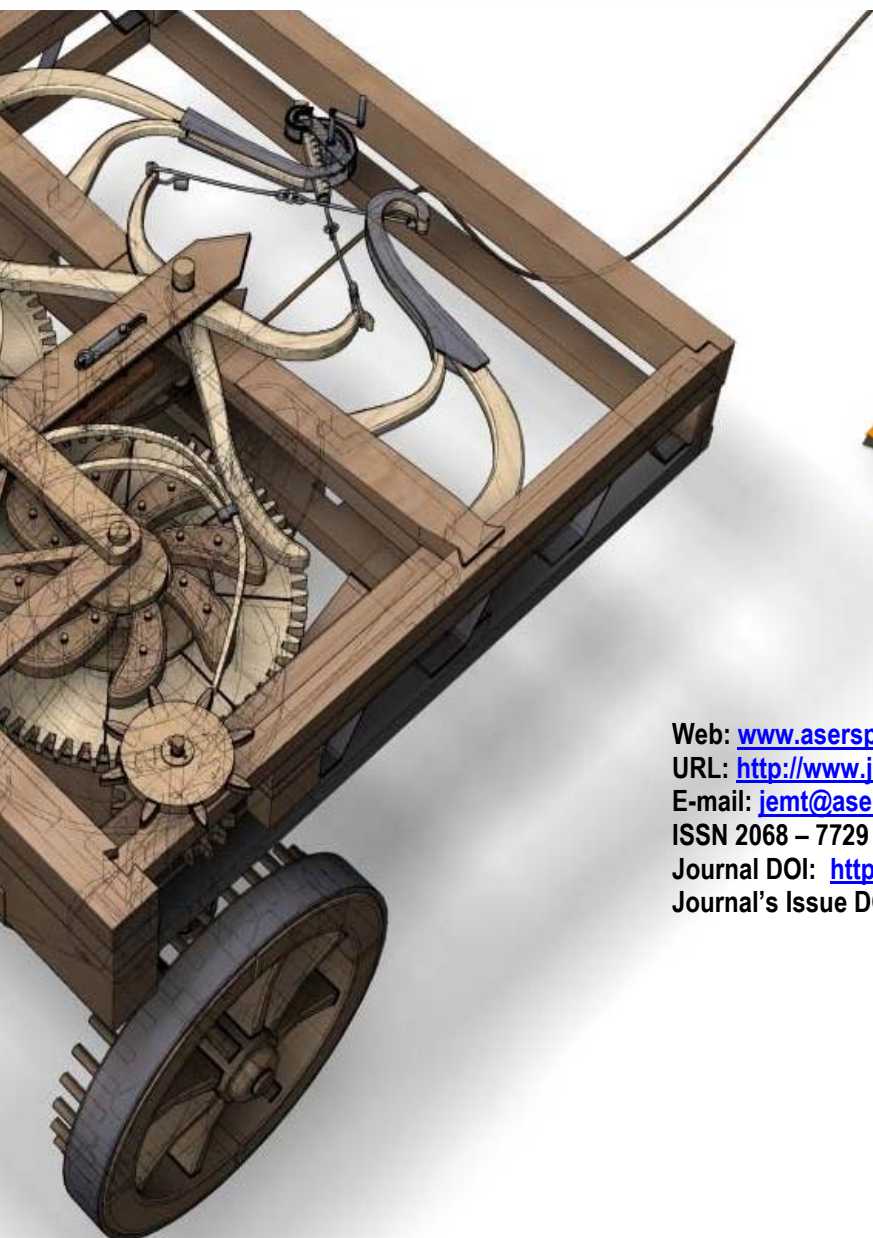
The publication was prepared with the support of "RUDN University Program 5-100".

References

- [1] Clarysse, B., Wright, M., Bruneel, J. and Mahajan, A. 2014. Creating value in ecosystems: Crossing the chasm between knowledge and business ecosystems. *Research Policy*, 43 (7): 1164-1176
- [2] Dudin, M.N., Lyasnikov, N.V., Veselovsky, M.Y., Sekerin, V.D., Aleksakhina, V.G. 2014. The problem of forecasting and modelling of the innovative development of social-economic systems and structures. *Life Science Journal*, 11(8): 549-552.
- [3] Giliarov, M.S. 1986. *Biologicheskii entsiklopedicheskii slovar* [Biological encyclopedic dictionary]. 2-nd edit., revised. Moscow: Sov. Entsiklopedia, 864 pp.

- [4] Martin, J.A. 2015. *5 Must-Have Skills for the Modern Marketer*. American Marketing Association. Available at: <https://www.ama.org/publications/MarketingNews/Pages/5-must-have-marketing-skills.aspx> (Accessed on 09.05.2017).
 - [5] Moore, J.F. 1993. Predators and prey - a new ecology of competition. *Harvard Business Review*, 71 (3): 75-86
 - [6] Ozhegov, S.I. and Shvedova, N.Iu. 1999. *Tolkovy slovar russkogo iazyka* [Explanatory dictionary of Russian language]. 4-th ed., enlarged. Moscow: Azbukovnik. ISBN-10: 589285003X, 939 pp.
 - [7] Sekerin, V.D., Burlakov, V.V., Dzyurdzha, O.A. and Gorokhova, A.E. 2015. Peculiarities of Forecasting Competitiveness of Innovations for Industrial Enterprises. *International Journal of Economics and Financial Issues*, 5 (3S): 54-60.
 - [8] Vincent, B. (n. d.). Facebook: Not an Ad Platform but an Ecosystem. Available at: <http://www.millwardbrown.com/docs/default-source/insight-documents/points-ofview/Millward Brown POV Facebook Not an Ad Platform but an Ecosystem.pdf> (Accessed on 14.03.2017).
 - [9] Zeszut, J. and Mitra, S. 2016. *Agile Marketing Measurement*. Report at MarTech conference, San Francisco, USA.
- ***15 experts define agile marketing. (n. d.). Available at: <http://www.biznology.com/2012/07/15-experts-define-agile-marketing/> (Accessed on 10.12.2016).
- ***Artificial Intelligence Software. (n. d.). Available at: <https://albert.ai/artificial-intelligence-marketing/> (Accessed on 14.04.2017).
- ***Atlas novykh professii [Atlas of new professions]. (n. d.). Available at: <http://atlas100.ru/catalog/> (Accessed on 02.03.2017).
- ***Business ecosystems come of age. 2015. Deloitte University Press. Available at: <http://www.dupress.deloitte.com/dup-us-en/focus/business-trends/2015.html> (Accessed on 22.05.2017).
- ***Forrester Consulting. How Engaged Are Your Customers? (n. d.). Available at: <http://www.indigopacific.com/pdf/Forrester TLP How Engaged Are Your Customers.pdf> (Accessed on 11.03.2017).
- ***Lucy lends a helping hand to marketing professionals. (n. d.). Available at: <http://www.equals3.ai> (Accessed on 12.05.2017).
- ***Marketing: 96 Amazing Social Media Statistics and Facts. 2016. Available at: <https://www.brandwatch.com/blog/96-amazing-social-media-statistics-and-facts-for-2016/> (Accessed on 16.03.2017).
- ***PWC. (n. d.). Available at: <http://www.press.pwc.com/News-releases/europe-s-five-key-sharing-economy-sectors-could-deliver--570-billion-by-2025/s/45858e92-e1a7-4466-a011-a7f6b9bb488f> (Accessed on 12.05.2017).
- ***Tolkovy slovar russkogo iazyka [Explanatory dictionary of Russian language]. (1935-1940). Edited by D. N. Ushakov, Moscow: State institute "Sov. entsikl.; OGIz; State publisher of foreign and national dictionaries, 4 pp.
- ***Why Cosabella replaced its agency with AI and will never go back to humans. (n. d.). Available at: <http://www.campaignlive.co.uk/article/why-cosabella-replaced-its-agency-ai-will-go-back-humans/1427323> (Accessed on 02.04.2017).
- ***Worldwide Semiannual Big Data and Analytics Spending Guide. (n. d.). Available at: <http://www.idc.com> (Accessed on 12.05.2017).

ASERS



 **ASERS**
Publishing

Web: www.aserspublishing.eu

URL: <http://www.journals.aserspublishing.eu/jemt>

E-mail: jemt@aserspublishing.eu

ISSN 2068 – 7729

Journal DOI: <http://dx.doi.org/10.14505/jemt>

Journal's Issue DOI: [http://dx.doi.org/10.14505/jemt.v9.1\(25\).00](http://dx.doi.org/10.14505/jemt.v9.1(25).00)