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MODEL OF ORGANIZATIONAL AND INFORMATION SUPPORT OF SMART CITY STRATEGY DEVELOPMENT IN THE CONDITIONS OF DIGITAL ECONOMY

The article is devoted to the study of the theoretical and methodological foundations of the development of a model of organizational and information support for the development of smart city strategy in a digital economy. The **subject** of the study is a set of theoretical, methodological and practical aspects to ensure the formation of a model of organizational and information support for the development of a strategy for smart cities in a digital economy. The **purpose** of the article is to develop theoretical and methodological provisions and substantiate practical recommendations for the formation of a model of organizational and information support for the development of a strategy for smart cities on a balanced scorecard in a digital economy.: to analyze the most progressive cities in the world to create and implement a strategy of smart cities in terms of leading international rankings of smart cities; to study and systematize methodical approaches to the assessment of smart cities according **Objectives** to international rankings in the digital economy; summarize the advantages and disadvantages of ranking smart cities; to offer a model of organizational and information support for the development of a strategy for smart cities on a balanced system of indicators in a digital economy. In the course of the research the following **methods** were used: abstract-logical analysis, theoretical generalization and systematization, system analysis. The paper analyzes the most progressive cities in the world in terms of leading international rankings of smart cities in the digital economy. Methodological approaches to the assessment of smart cities according to international rankings in the digital economy are summarized; their advantages and disadvantages are identified. It is proved that today there is no single methodological approach to assessing the rating of a smart city. A model of organizational and information support for the development of a strategy for smart cities on a balanced scorecard in a digital economy has been developed. **Conclusions.** A comparative analysis of the Top 10 smartest cities in the world in terms of leading international rankings; on the basis of the conducted analysis the components of the assessment of smart cities are systematized within the framework of the studied methodological approaches to the assessment of smart cities according to international rankings. a model of organizational and information support for the development of a smart cities strategy on a balanced system of indicators was developed, which is considered as an integrated assessment system; the information and analytical tools for assessing the level of balanced development of smart cities, is an informative basis for positioning the city on the selected components of a balanced scorecard are proposed.

Keywords: "smart cities"; digital economy; ratings of smart cities; balanced scorecard; strategy of smart cities; model of organizational and information support; information and analytical tools.

Introduction

The concept of "smart cities" is becoming more widespread in the world. According to the new Navigant Research Global Market Report, there are more than 250 smart city projects in the world from 178 cities, and most of them focus on five key areas, namely, smart energy, smart water, smart transport, smart buildings and smart management [1]. In such conditions, the relevance of developing sound organizational and information support for developing a smart cities strategy for the digital economy is increasing.

Analysis of recent research and publications

The growing level of urbanization in the world makes it advisable to transform municipal government on the principles of the Smart Cities concept by integrating systems and data, modernizing urban infrastructure, introducing effective municipal management, increasing the development of innovation and human capital.

The importance of the introduction of balanced urban development management in the context of comprehensive digitalization, the problems of its implementation led to the study of these issues by a wide range of scientists, especially foreign ones. Thus, theoretical and methodological approaches to the introduction of the "Smart Cities" concept are comprehensively covered in the works of such foreign scientists as L. Buys, D. Genari, J. Graham, I. Zubizarreta, T. Ygitkanlar, P. Evans, G. Ezkowitz, M. Kamruzzaman,

L. Costa, L. Leidesdorf, J. Lazara, R. McQuaid, M. Marshall, J. Muske, C. Oberg, D. O'Brien, S. Osborne, M. Roscia, T. Savaris, A. Seravalli, K. Strokosh, B. Hutchinson, P. Hennelly and many others [2, 3, 4, 5].

A. A. Andrienko, A. S. Korepanov's studies are devoted to substantiating the theoretical and methodological foundations of managing the development of "smart" large cities in Ukraine in the context of the widespread introduction of information and communication technologies [6, 7].

Highly appreciating the fundamental achievements and quite high interest in the development of the concept of smart cities, it should be noted that the problem of studying the organizational and information support for the development of smart cities strategy in the digital economy taking into account the influence of the factors of the digital economy remains beyond the attention of scientists, which determines the relevance and timeliness of this study.

Purposes and objectives of the study

The purpose of the article is to develop theoretical and methodological provisions and substantiate practical recommendations on the formation of a model of organizational and information support for the development of a strategy for smart cities on a balanced system of indicators in the digital economy. The objective of the work is to analyze the most progressive cities in the world to create and implement a strategy of smart cities in terms of leading international rankings of smart cities; to

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study and systematize methodological approaches to the assessment of smart cities according to international rankings in the digital economy; summarize the advantages and disadvantages of smart city rating; to offer a model of organizational and information support for the development of smart cities strategy for a balanced scorecard in the digital economy.

Materials and methods of research

The theoretical and methodical basis of the study was the scientific works of leading domestic scientists and foreign scientists-economists, international ratings of smart cities, namely: IESE Cities in Motion Index, IMD – SUTD (SCI), Smart City Index, Smart City Strategy Rating, (SCSI), PwC Cities of Opportunity 7, EasyPark

Smart City Index, Kearney (GCI) (GCO); Methodical approaches to assessing intelligent cities according to international ratings. In the course of the study, such methods were used: abstract-logical analysis, theoretical generalization and systematization, system analysis.

Research results and their discussion

The assessment of the current situation and the systematization of the experience of the world's leading smart cities are important for the construction of the strategy and its further implementation. So, at the first stage, representative cities were selected, which are the most progressive in the world to create and implement a smart city strategy in the context of the leading international smart city ratings (table 1).

Table 1. *Comparable analysis of the Top 10 smartest cities in the world in terms of international ratings*

City	IESE Cities in Motion Index, 2020 (CIMI)	IMD – SUTD (SCI) Smart City Index 2020	Smart City Strategy Rating, (SCSI)	PwC Cities of Opportunity 7	EasyPark Smart City Index 2019	Kearney (GCI) (GCO) 2020
London (Great Britain)	1 (0)	15 (+5)	Advanced (3)	1	50	2 (0)
New York (USA)	2 (0)	10 (+28)	None	6	23	1 (0)
Paris (France)	3 (-1)	61 (-10)	Implementation Follower (10)	4	38	3 (0)
Tokyo (Japan)	4 (-2)	79 (-17)	None	15	54	4 (0)
Reykjavik (Iceland)	5 (0)	-	None	-		-
Copenhagen (Denmark)	6 (-2)	6 (-1)	None	-	4	20 (-3)
Berlin (Germany)	7 (-2)	38 (+1)	None	12		15 (-1)
Amsterdam (Netherlands)	8(+5)	9 (+2)	None	5	3	23 (-3)
Singapore (Singapore)	9 (-2)	1 (0)	Advanced (2)	2	9	9 (-3)
Hong Kong (China)	10 (-1)	32 (+5)	None	9	87	6 (-1)
Zurich (Switzerland)	11 (-4)	3 (-1)	None	-	11	22 (-7)
Oslo (Norway)	12 (0)	5 (-2)	None	-	1	-
Chicago (USA)	13 (-4)	44 (+12)	Well progressing (5)	13		8 (0)
Stockholm (Sweden)	14 (+1)	16 (+9)	None	7	5	8 (2)
Vienna (Austria)	18(+8)	25 (-8)	Advanced (1)	-	7	22 (+3)
Helsinki (Finland)	22 (0)	2 (+6)	None	-	19	
Taipei (Taiwan)	27 (-3)	8 (-1)	None	-	25	26 (-1)
Geneva (Switzerland)	34 (+2)	7 (-3)	None	-	33	16 (-4)
Auckland (New Zealand)	35 (0)	4 (+2)	None	-	58	-
Beijing (China)	84 (+1)	82 (-22)	None	19	99	5 (+4)
Toronto (Canada)	30 (+12)	30 (-15)	None	3		19 (-2)
San Francisco (USA)	20 (-1)	27 (-15)	None	8		13 (+9)
Sydney (Australia)	17 (-2)	18 (-4)	None	10		12 (+1)
Kyiv (Ukraine)	115 (+4)	98 (-6)	None	-	-	-

Note: Compiled by the authors according to [8, 9, 10, 11, 12, 13, 14]. The parentheses show the changes in the rating compared to 2019.

The obtained data indicate that as a result of applying various methodological approaches to assessing the rating of smart cities, different cities entered the top ten "smart cities" in the same year according to different leading compilers. Moreover, according to different ratings, cities occupy different positions. Only cities such as London, Singapore and Paris are represented in each of the ratings under consideration.

The Center for Globalization and Strategy of the IESE Business School of the University of Navarre, since

2014, annually compiles the IESE Cities in Motion Index (CIMI), calculated to help the public and governments determine the effectiveness of the city. The CIMI indicator system is a research platform based on an integrated approach that combines an innovative approach to city management and a twenty-first century city model based on four factors: a sustainable ecosystem, innovation, equal opportunities for citizens and well-connected territories based on nine basic aspects, including human capital, social cohesion, economy, governance,

environment, mobility and transport, urban development, international importance and technology. The analytical platform is based on a series of in-depth interviews with city authorities, entrepreneurs, scientists and experts whose activities are related to the development of smart cities. So, according to the 2020 report (sixth edition), experts surveyed the degree of development in 174 cities (including 79 capitals) from 80 countries. The conceptual model of the CIMI index is based on the implementation of urban ranking, which is considered as a set of steps covering the research of the situation, the construction of a strategy and its further implementation [2]. It is important to note that the CIMI indicator system includes not so much SMART and ICT indicators, but rather the results of their application. According to the IESE Cities in Motion Index (CIMI) 2020 rating, Europe is the most effective geographical region with 14 cities, which are among the 25 best smart cities (table 2).

According to the IESE rating, for six consecutive years London has never fallen below the second position, and since 2019 it ranks first, including in terms of human capital (thanks to a large number of business schools and universities) and conditions for international cooperation. Since 2017, it remains in the top ten in terms of the development of management, mobility and transport, technology and urban planning. In addition, more startups and programmers are concentrated in the British capital than in any other city in the world. So, the open data platform "London Datastore" uses more than 50,000 people, companies, developers and researchers monthly, which makes it possible to achieve significant success in solving transport issues, in particular through the use of Heathrow shuttles that connect London with Heathrow Airport. The weakest link in the British capital is still social cohesion with position 64. However, in this position there is a deterioration compared to the 45th position in 2019 and an improvement compared to the 68th position in 2018 and the 105th in 2017. In order to manage the life support of the city, the Smart London system allows city authorities to model situations in each area of the city on the basis of 60 criteria, including demographic, geological and historical data. There are more than 300 outdoor surveillance cameras per 1 km2 of London.

Singapore is an island city-state, confidently located in the top rankings of smart cities in the world. The successful implementation of the Smart Nation program has already allowed Singaporeans to get high-speed Internet access in every home. And for each resident of Singapore there are three smartphones. Along with the development of high-tech industries in Singapore ICT is widely used in the social sphere.

In the IESE ranking, New York ranks second in the world thanks to the best economic indicators (1st place in the world in the state of the urban economy), high human capital, progressive urban planning and good conditions for establishing international ties. New York City has nearly 7,000 high-tech companies and ranks 8th in technicality, providing many integrated technology services, such as free Wi-Fi LinkNYC. Like the residents of London, social cohesion (137 positions), which has

improved compared to 151 positions in 2019, has not yet been achieved by New Yorkers.

Amsterdam is one of the most progressive cities in Europe thanks to the symbiosis of financial technologies, energy efficiency and culture. A web site with open data called Amsterdam Smart City was created for residents of the city. The number of bicycles (881 thousand) here exceeds the number of inhabitants (850 thousand), because it is convenient to use them thanks to a developed system of automated services. Amsterdam plans to become the first European city with zero emissions. Therefore, the city authorities plan to ban cars with gasoline and diesel engines until 2025.

Paris, like London, is one of the most important financial centers in Europe. Its strongest points in the IESE Cities in Motion Index (SIMI) 2020 are international relations (2 position), transport and mobility (2 position), human capital (6 position), urban planning (12 position), economy 13 position) [2]. In addition, Paris is actively using open innovation, the Internet of Things (to optimize the flow of transport and pedestrians) and an automated metro system. To improve air quality in the city, the authorities are promoting the use of bicycles and electric cars.

As for the environment, for the second year in a row, the best city is Reykjavik (5th overall rating), followed by Copenhagen (6th). More than 99% of the city's electricity is generated thanks to geothermal sources; the authorities have completely abandoned combustible minerals. Iceland's capital also approved a program that plans to become a zero-carbon city by 2040. However, the level of urban planning remains low (125 position).

According to the rating of the "smartest" cities in the world IMD - SUTD (SCI) Smart City Index 2020, compiled by the Smart City Observatory of the World Competitiveness Center of the Institute for Management Development (IMD) in collaboration with Singapore University of Technology and Design (SUTD), Singapore is one of the Top 10 smartest cities in the world (Singapore), followed by Helsinki (Finland), Zurich (Switzerland), Auckland (New Zealand), Oslo (Norway), Copenhagen (Denmark), Geneva (Switzerland), Taipei (Taiwan), Amsterdam (Netherlands) and New York (USA). The rating has been compiled since 2019 by interviewing residents about the technological capabilities of their city in five key sectors: health and safety, mobility, activities, opportunities and management [4]. In 2020, 109 cities of the world were interviewed. The assessment is based on how people perceive the scale and impact of efforts to make their cities "smart," combining "economic and technological aspects" with "humane dimensions." The study also assessed the availability of technology for urban residents. In 2020, Kiev took 98th place in the ranking of the smartest cities in the world IMD - SUTD (SCI) Smart City Index 2020, having lost 6 positions in a year. According to the results of the survey, Kiev residents identified corruption, road quality, affordable housing, safety and air pollution as key issues that need to be addressed in the city (table 2).

Table 2. *Systematization of methodical approaches to the assessment of smart cities according to international rankings*

Ranking	Year	Developer	Components of smart city assessment
IMD – SUTD (SCI) Smart City Index	2019	Swiss Business School IMD together with the Singapore University of Technology and Design The rating assesses 109 cities by surveying 120 residents of each city	Rated by five key spheres: 1. health and safety, 2. mobility, 3. activities, 4. opportunities, 5. management. Cities are distributed into four groups based on the Human Development Index (HDI).
EasyPark Smart City Index	2018	Swedish developer of electronic solutions for city parking EasyPark estimates 500 cities	1. smart parking, 2. urban planning, 3. car-sharing services, 4. education, 5. urban traffic, 6. business ecosystem, 7. public transport, 8. 4G LTE, 9. clean energy, 10. Internet speed, 11. smart construction, 12. WiFi access points 13. MSW handling, 14. the prevalence of smartphones, 15. protection of the environment, 16. standard of living, 17. involvement of residents, 18. digitalization of the government, 19. methods of transition to a "smart city".
Smart City Strategy Index (SCSI)	2017	Developer: Ronald Berger. The 2019 rating scores 153 cities with an officially developed Smart City Strategy	The rating includes 3 smart city dimensions, 12 components and 31 indicators. Action Fields: 1. houses, 2. energy and environment, 3. mobility, 4. education, 5. health, 6. management, Activators. Planning: 7. budget, 8. plan, 9. coordination, 10. stakeholders, Activators. Infrastructure and politics. 11. political and legal base 12. infrastructure.
Cities of Opportunity	2014	Pricewaterhouse Coopers (PWC). The rating assesses the readiness of the 30 largest cities in the world to introduce future technologies	Appreciated by 67 indicators grouped by ten components: 1. intellectual capital and innovation, 2. technological readiness, 3. openness of the city, 4. transport and infrastructure, 5. health and safety, 6. resistance and environment, 7. demography and suitability for life, 8. economy, 9. simplicity of doing business, 10. cost.
IESE Cities in Motion Index (CIMI)	2014	IESE University of Navarre Business School The rating estimates 174 cities from 80 countries, of which 79 are capitals	101 Indicator is grouped according to 9 components: 1. human capital (development, attraction and education of talents), 2. social cohesion (consensus between social groups), 3. economics, 4. environment,

The end **Table 2**

IESE Cities in Motion Index (CIMI)	2014	IESE University of Navarre Business School The rating estimates 174 cities from 80 countries, of which 79 are capitals	5. management, 6. urban planning, 7. international relations, 8. technology, 9. mobility (ease of movement)
Global Cities Index, Global Cities Outlook (GCO) Kearney	2011	Kearney scores Global Cities Index (GCI) and Global Cities Outlook (GCO). In 2020 rating evaluates 151 cities.	GCI 1. business activity, 2. human capital, 3. exchange of information, 4. cultural experience, 5. political activity, GCO 1. personal well-being, 2. economy, 3. innovation, 4. management.

Note: Compiled by the authors according to [8, 9, 10, 11, 12, 13, 14].

Singapore has spent the most on smart city initiatives in the world, well ahead of New York, London and Tokyo, investing $ 1.1 billion.

R. Berger's report Smart City Strategy Rating (SCSI) states that 153 cities around the world, including large and small, have published an official Smart City strategy. 15 of them have strategic plans that demonstrate a comprehensive strategic approach. Moreover, only 8 of them are at an advanced stage of implementation. In addition, the report notes that there are about 500 cities worldwide with a population of more than one million (according to UN estimates), with only 49 of them having a formal Smart City strategy (table 2). According to the results of 2019, the group of leading cities included: Vienna (selected flagship projects: E - medicine, open public data, virtual office), London (selected flagship projects: open city data ecosystem, sensory infrastructure) and Singapore (selected flagship projects: digital and touch platforms, national digital identity) [5]. Summarizing the experience of the world's leading cities, R. Berger proves the need for a participatory approach to developing a smart city strategy.

According to the Cities of Opportunity 7 PricewaterhouseCoopers LLP rating, five cities are among the top ten in terms of indicators estimated: London, New York, Tokyo, Amsterdam and Paris. London maintains a rating of No. 1 among 30 cities assessed by three groups of indicators, namely, intellectual capital and innovation; technological readiness; global openness. Intellectual capital and innovations generated by a highly certified society are the sewers of the development of the modern urban ecosystem. Within this group of indicators, the leaders are London, San Francisco, Paris, Amsterdam, Toronto, New York, Los Angeles, Tokyo, Sydney, Stockholm and Chicago. The process readiness assessment takes into account such components as quality (or reliability of connections), speed (unloading/downloading), value (cost) and digital safety. The top ten in this component include Singapore, London, Amsterdam, New York, Stockholm, Hong Kong, San Francisco, Tokyo, Paris and Toronto. The indicators of the third group assess the global connections and attractiveness of the city outside its local borders and measure the global attractiveness of the city, taking into account the social, economic and cultural magnetism of the city at the international level. London remains in the first position in this group of indicators. Paris moved from 7th position in 2014 to 2nd in 2020. Among the leaders in this group of indicators are Beijing, Dubai, Hong Kong, Tokyo, Singapore, and Amsterdam [6].

The Swedish developer of electronic solutions for managing urban parking EasyPark has developed the Smart Cities Index, consisting of 19 components. As part of an integrated approach to the calculation of the index, both criteria directly related to the use of ICT and general criteria reflecting the level of development of the urban economy and the quality of life in the city as a whole are proposed. [7].

Leading international management consulting company Kearney evaluates the ratings of the world's leading cities according to the Global Cities Index (GCI) (assesses global urban activity) and Global Cities Outlook (GCO) (assesses the ability of the city to attract talented human. According to the GCI rating for the fourth year in a row, New York leads the ranking of world cities, followed by London, Paris and Tokyo Best cities rated by GCO - London, New York, Paris.

Summing up, it is worth noting that as a result of the use of various evaluation criteria and the construction of a rating in the same year, different cities entered the top ten "smart cities" of the world according to different compilers. Thus, in the positions of the first ten "smart" cities in the world, 22 cities occupy according to various ratings. Three of them (London, Paris and Singapore) are represented in all the ratings under consideration.

Thus, the study allows us to conclude that today there is no single methodological approach to assessing the rating of a smart city. All considered methodological approaches are based on the calculation of an integrated criterion that characterizes not only the use of smart-technologies and ICT, but also the result of their application, which affects the state and level of development of the city. The aggregation of indicators that characterize smart cities into one integrated indicator provides compactness and clarity of the obtained ratings. In this direction, rating is used as a sound tool to present the results of the survey of smart cities in the dynamics and is an informative basis for positioning the city on

selected components to identify competitive advantages for developing strategies for smart city development in the digital economy.

Along with the advantages of rating smart cities, the disadvantages should also be noted. First, it is problematic to collect statistical information to compile a ranking of smart cities. Second, there is a correlation between the indicators that characterize the various components of the rating. Third, the considered methodological approaches do not substantiate the choice of values of weights for the construction of a smart city rating. Fourth, the level of influence of the subjective factor remains high when conducting expert surveys. Fifth, the use of not only statistical indicators in the ranking raises the problem of ambiguous interpretation of the obtained results. There may even be a politicized nature of the interpretation of the results obtained and the interests of individual parties. In addition, the ratings state the facts of past achievements of cities in the areas analyzed and do not take into account the prospects of strategic development.

However, despite these disadvantages, the rating of cities is a fairly reasonable tool for making strategic decisions and determining promising directions for the development of smart cities in the digital economy.

In addition, a necessary step to develop a strategy for smart cities in Ukraine is to summarize existing officially adopted strategies for the development of smart cities among the world's smartest cities represented in international rankings. It is worth noting that among the Top 10 cities, London, Singapore and Vienna are advanced in developing a smart city strategy. Paris is a follower of smart city strategy and Chicago is a well progressed smart city strategy development city (table 1).

Thus, based on the results of the study of the process of developing and implementing the strategy of the world's leading smart cities, it was established that the development of the smart city strategy should be carried out through the use of sound organizational and information support with the calculation of an integrated indicator for the priority areas of smart city development.

For this purpose, a model of organizational and information support for the development of a smart cities strategy on a balanced system of indicators is proposed, which is considered as a complex, open, integral, integrated system in external processes, which should be organically combined with the overall city development strategy and ensure the balance of long-term goals of sustainable city development (fig. 1).
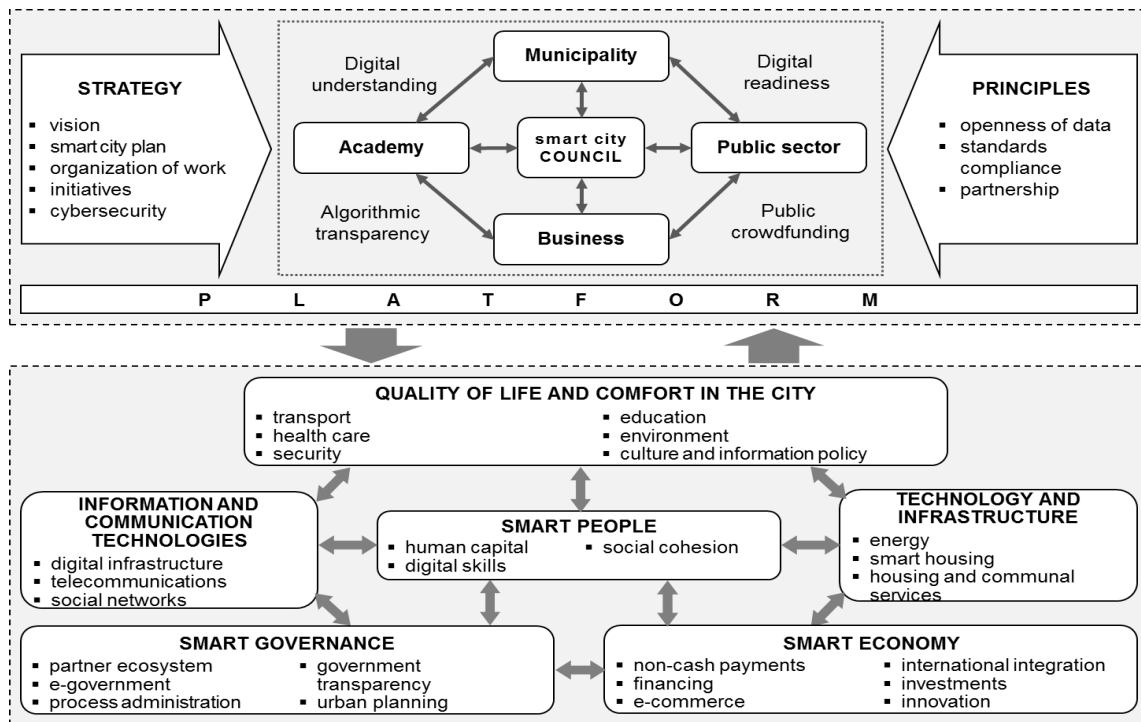

Fig. 1. Conceptual model of organizational and information support for the development of smart cities strategy on a balanced system of indicators in the digital economy

The proposed model, unlike the existing ones, is based on the use of indicator analysis with the implementation of an integrated assessment of interdependent indicators of balanced development of a smart city. For this purpose, based on the results of systematization of methodological approaches to the assessment of smart cities according to international ratings, information and the analytical tool have been formed to assess the level of balanced development of smart cities according to a balanced system of smart city indicators (Smart City Balanced Scorecard (SCBSC),

which allows you to identify priorities and activities for developing a development strategy. The proposed information and analytical tool for assessing the level of balanced development of smart cities is based on the assessment of an integrated smart city indicator according to the following priority areas of smart city development (or projections of a balanced indicator system): smart people, smart governance, information and communication technologies, technology and infrastructure, smart economy, quality of life and comfort in the city [15].

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Conclusions

The generalization of foreign experience indicates the need to introduce the ranking of cities of Ukraine using modern information and analytical tools to assess the level of balanced development of smart cities using methodological approaches of leading ratings of the world.

According to the results of the study, it was found that organizational and information support for the development of a smart city strategy according to a balanced system of indicators is defined as a complex, open, integral, integrated system in external processes, which should be organically combined with the general strategy for the development of the city and ensure a balance of long-term goals for the sustainable development of the smart city in the digital economy.

A model of organizational and information support for the development of a smart city strategy based on a balanced scorecard is proposed, which, in contrast to the existing ones, is based on an integrated approach that combines an innovative approach to smart city management and the Smart City Balanced Scorecard (SCBSC), which allows to identify priorities and measures to develop a strategy for the development of a smart city in a digital economy.

An information and analytical tool for assessing the level of balanced development of smart cities is proposed, which is an informative base for positioning the city according to the selected components of the balanced indicator system, which ensures the compactness and visibility of the ratings and sub-ratings obtained for and is a reasonable tool for presenting the results of the survey of smart cities in dynamics with determining competitive advantages for working out a strategy for the development of a smart city in a digital economy.

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МОДЕЛЬ ОРГАНІЗАЦІЙНО-ІНФОРМАЦІЙНОГО ЗАБЕЗПЕЧЕННЯ РОЗРОБКИ СТРАТЕГІЇ РОЗУМНИХ МІСТ В УМОВАХ ЦИФРОВОЇ ЕКОНОМІКИ

Стаття присвячена дослідженню теоретико-методичних засад розробки моделі організаційно-інформаційного забезпечення розробки стратегії розумних міст в умовах цифрової економіки. **Предметом** дослідження є сукупність теоретичних, методичних і практичних аспектів щодо забезпечення формування моделі організаційно-інформаційного забезпечення розробки стратегії розумних міст в умовах цифрової економіки. **Метою** статті є розробка теоретико-методичних положень та обґрунтування практичних рекомендацій щодо формування моделі організаційно-інформаційного забезпечення розробки стратегії розумних міст за збалансованою системою показників в умовах цифрової економіки. **Завдання** роботи: проаналізувати найбільш прогресивні у світі міста щодо створення та впровадження стратегії розумних міст в розрізі провідних міжнародних рейтингів розумних міст; дослідити та систематизувати методичні підходи до оцінки розумних міст за міжнародними рейтингами в умовах цифрової економіки; узагальнити переваги та недоліки рейтигрування розумних міст; запропонувати модель організаційно-інформаційного забезпечення розробки стратегії розумних міст за збалансованою системою показників в умовах цифрової економіки. У ході дослідження використано **методи**: абстрактно-логічний аналіз, теоретичного узагальнення та систематизації, системний аналіз. В роботі проаналізовано найбільш прогресивні у світі міста в розрізі провідних міжнародних рейтингів розумних міст в умовах цифрової економіки. Узагальнено методичні підходи до оцінки розумних міст за міжнародними рейтингами в умовах цифрової економіки, визначено їх переваги та недоліки. Доведено, що на сьогодні не існує єдиного методологічного підходу до оцінки рейтингу розумного міста. Розроблено модель організаційно-інформаційного забезпечення розробки стратегії розумних міст за збалансованою системою показників в умовах цифрової економіки.. Здійснено порівняний аналіз Топ-10 найрозумніших міст світу в розрізі провідних міжнародних рейтингів; на базі проведеного **Висновки** аналізу систематизовано компоненти оцінки розумних міст в рамках досліджених методичних підходів до оцінки розумних міст за міжнародними рейтингами. На базі проведеного дослідження розроблено модель організаційно-інформаційного забезпечення розробки стратегії розумних міст за збалансованою системою показників, що розглядається як комплексна система оцінки; запропоновано інформаційно-аналітичний інструментарій оцінки рівня збалансованого розвитку розумних міст, що є інформативною базою для позиціонування міста за обраними компонентами збалансованої системи показників.

Ключові слова: "розумні міста"; цифрова економіка; рейтинги розумних міст; збалансована система показників; стратегія розумних міст; модель організаційно-інформаційного забезпечення; інформаційно-аналітичний інструментарій.

МОДЕЛЬ ОРГАНИЗАЦИОННО-ИНФОРМАЦИОННОГО ОБЕСПЕЧЕНИЯ РАЗРАБОТКИ СТРАТЕГИИ УМНЫХ ГОРОДОВ В УСЛОВИЯХ ЦИФРОВОЙ ЭКОНОМИКИ

Статья посвящена исследованию теоретико-методических основ разработки модели организационно-информационного обеспечения разработки стратегии умных городов в условиях цифровой экономики. **Предметом** исследования совокупность теоретических, методических и практических аспектов по обеспечению формирования модели организационно-информационного обеспечения разработки стратегии умных городов в условиях цифровой экономики. **Целью** статьи является разработка теоретико-методических положений и обоснование практических рекомендаций по формированию модели организационно-информационного обеспечения разработки стратегии умных городов по сбалансированной системой показателей в условиях цифровой экономики. **Задачи** работы: проанализировать наиболее прогрессивные в мире города по созданию и внедрению стратегии умных городов в разрезе ведущих международных рейтингов умных городов; исследовать и систематизировать методические подходы к оценке умных городов по международным рейтингам в условиях цифровой экономики; обобщить преимущества и недостатки рейтигования умных городов; предложить модель организационно-информационного обеспечения разработки стратегии умных городов по сбалансированной системой показателей в условиях цифровой экономики. В ходе исследования использованы методы: абстрактно-логический анализ, теоретического обобщения и систематизации, системный анализ. В работе проанализированы наиболее прогрессивные в мире города в разрезе ведущих международных рейтингов умных городов в условиях цифровой экономики. Обобщены методические подходы к оценке умных городов по международным рейтингам в условиях цифровой экономики, определены их преимущества и недостатки. Доказано, что на сегодняшний день не существует единого методологического подхода к оценке рейтинга умного города. Разработана модель организационно-информационного обеспечения разработки стратегии умных городов по сбалансированной системой показателей в условиях цифровой экономики. **Выводы.** Осуществлен сравнительный анализ Топ-10 самых умных городов мира в разрезе ведущих международных рейтингов; на основе проведенного анализа систематизированы компоненты оценки умных городов в рамках исследованных методических подходов к оценке умных городов по международным рейтингам. На основе проведенного исследования разработана модель организационно-информационного обеспечения разработки стратегии умных городов по сбалансированной системой показателей, рассматривается как комплексная система оценки; предложено информационно-аналитический инструментарий оценки уровня сбалансированного развития умных городов, является информативной базой для позиционирования города по выбранным компонентами сбалансированной системы показателей.

Ключевые слова: "умные города"; цифровая экономика; рейтинги разумных городов; сбалансированная система показателей; стратегия разумных городов; модель организационно-информационного обеспечения; информационно-аналитический инструментарий.

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