

approach to assessing the art investment financial security level, based on the introduction of a quantitative assessment of the suggested indicators with fixing their value within the offered scale of indicator assessment has been developed. By means of it you are able to measure the art investment financial security level and apply remedies to prevent its destruction. A morphological matrix for assessing the art investment financial security level has been generated. An approach to the art investment objects' classification by risk groups has been suggested.

Analytical and applied support for minimizing the risks of art objects' investment portfolio in terms of the financial security level of art investment in the local art market has been developed. The decomposition of the art object investment allurements suggested multiplier by key indicators of art investment financial security management for the local art market has been carried out.

The necessity to implement a multi-criteria approach to assessing the art investment financial security level in the art market in the practice of art market entities is proved in this work according to the results of the development of both analytical and applied support for assessing the level of financial and economic security of investment strategies in the art industry market.

The approbation of both analytical and applied support for minimizing the art objects' investment portfolio risks of art investment financial security in the local art market using the offered model using the investment portfolio example of modern Ukrainian artists' art objects has been carried out. A methodological approach to assessing the level of art investment financial security for art objects of the investment portfolio has been suggested. It allows you to develop a trajectory to minimize the investing risks in an art object according to the financial security established components of the art investment internal environment.

## **SMART CITY TECHNOLOGIES**

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Currently, the concept of "smart cities" is attracting more and more attention. It means using modern advances in the field of telecommunications, software, electronics, robotics technology to create a completely new high-tech urbanized human environment with minimal resource consumption, optimal traffic distribution, efficient labor, offers and innovative services for the citizens [1, 2, 3]. A smart city consists of smart devices and smart people, which are

connected into a single information and communication network that allows to control both engineering systems and the processes that a person does in the everyday life [5]. An innumerable number of human beings and computers, their smart devices and software, become a single organism that cannot exist without each other.

The key elements of the smart city are devices "Internet of things" - IoT (sensors, drives, gateways, applications, smartphones, servers, virtual servers, personal computers, various devices, etc.). Such a variety and number of devices, users and services impose certain requirements on a computing infrastructure that supports the viability of a smart city, through continuous information interaction between devices and a person [6, 7]. To achieve the full potential of the usage of the "Internet of things" it is not enough just to connect intelligent devices to the network, they should be connected to intelligent device management services. Management services should be able to identify, grant access, manage and connect to other devices. The management infrastructure requires the use of architectural approaches in balancing and using the intermediate layers of messaging to ensure interaction between the devices and the central management system (s) [8].

According to many scientists, researchers and developers, cloud elastic infrastructure technologies should become the core of managing "smart cities" and "the Internet of things" [9]. Currently, there is a strong interest to application of container technologies such as LXC [10] and Docker [11]. According to the results of the researches, the use of containerization allows to reduce the application deployment time by 54%, application deployment labor by 40% and application deployment cost by 30% [12].

Technically, "smart cities" consist of several layers: a layer of hardware (sensors, drives, smart devices, energy systems, telecommunication equipment), a layer of transport and control support, a layer of applications that provide processing of information flows, the use of geolocation data, the resumption of devices, interaction with people, etc.

Just as the human nervous system detects and responds to changes in the body, a "smart city" built on the Huawei platform can recognize, process information and make reasoned decisions that improve life conditions for any citizen. The "nervous system" of intelligent cities uses the latest information and communication technologies (ICTs), combining cloud computing, the Internet of things, huge data and artificial intelligence, which allow to analyze the situation and send reports in the real time regime.

The Huawei company has developed an open application and device solution platform that builds an expanding integration ecosystem for partners and solution providers. The company is one of the few suppliers in the industry with a complete set of ICT solutions that combine cloud-channel-device. [12]

Generally, more cities around the world are becoming objects of intellectual management. Well-known companies offer a reliable basis for

creating "smart cities." They seek to provide every person, home and organization with digital rights to the intellectual world.

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## THE ROLE OF TOURISM IN ECONOMIC DEVELOPMENT

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In the global economy, tourism is considered as one of the most important and growing sectors, which can bring positive economic outcomes to the national economies, especially in the point of gross the domestic product increase as well as employment opportunities.

International tourism has become increasingly important in several nations around the world. The third world nations frequently use tourism to