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The Role of Digital Technologies (Internet of Things and Artificial Intelligence) in the Development of Smart Cities and Sustainable Logistics

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ABSTRACT

The smart city is one of the popular topics in the sustainable development of the city.. However, there is still a misunderstanding about what smart cities are and the role of digital technology in its development. Therefore, the main purpose of this article is to address the role of digital technology in the growth of smart city and sustainable logistics . In this study, first, the analysis of the smart city literature is presented to achieve this goal.The development of information technology of smart cities depends on the characteristics and characteristics of cities, as well as on macro-technological considerations. Cities that use information technology as a means of urban sustainability create intelligence to emerge as smart cities as a source of growth and permanent transformation in the urban ecosystem, and to pursue a sustainable management and organizational perspective.Digitalization, with the increasing influx of technological innovations, is transforming business and is likely to fuel the transition towards a more sustainable way of creating value.. Apart from hardware trends, it is mainly software-based digital technologies that bring about fundamental changes in processes, operations, functions, and supply chains . The results showed that, in smart cities, resources will be managed efficiently, and the governance and planning of cities will also be efficient. In addition, transportation systems, waste management, and healthcare services will be effective It was. In this study, the role of digital technology in the transportation and logistics sectorwas investigated. The purpose of thispaper is to provide an overview of the city as a sustainable society that advances urban development and adopts the vision of smart urban growth

Introduction

According to a 2014 report by the United Nations Population Fund, more than sixty-six percent (66 percent) of the population will live in cities by 2030. More people will move from rural areas to urban areas in search of a better life [1]. As a result, resources will be overwhelmed in terms of security, environment, and scalability as they try to support a rapidly growing population. There will be a need to manage billions of people and provide them with a quality life. In order to solve such problems, governments and engineers are using technology to search for new approaches that improve resource management in urban areas. These approaches will help carry out a variety of tasks, such as improving transportation, water and energy management, waste management, among other resources and activities that underpin the operations of urban areas. Cities that rely on technological innovations to improve the efficiency of their operations and improve people's quality of life are called smart cities..

Smart cities integrate various technologies that can provide sustainable socio-economic development of urban areas. They rely on artificial intelligence, the Internet of Things, machine learning, deep learning, and big data, among other technologies, to develop smart city applications that preserve and improve the lives of billions of people in urban areas [3]. According to Veda and Rava [4], the use of technology in smart cities should be able to improve people's quality of life, stimulate economic growth, and improve urban management. A smart city is an integrated system of six components, consisting of smart people, smart living, smart mobility, smart environment, smart economy, and smart governance. A smart city is an integrated system It consists of six components, which consist of smart people, smart life, smart mobility, smart environment, smart economy, and smart governance. Intelligence that can be enhanced by the use of several critical technologies, including information and communication technology (ICT), Internet of Things (IoT), sensor technology, geospatial technology, artificial intelligence (AI), and blockchain[3].

Information and communication technology (ICT) is the leading technology in smart cities used to implement smart initiatives using physical infrastructure and data processing tools. IoT devices help cities collect and analyze real-time data to identify problems and improve service delivery. Inthe context of smart cities, sensor technology is a vital tool for measuring different values of systems, such as energy consumption., water quality, gas consumption, traffic density, pollution levels, and any other parameters. While AI technology is used to manage and control the city's automated infrastructure, geospatial technology is used across the subsystems of a smart city such as energy, transportation, public services, and governance to improve the efficiency of infrastructure management. In addition, a secure communication framework in a smart city can be achieved by using block technology. China[5].

In a broader context, digital technologies have also played an important role in accelerating access to more data and knowledge. This further strengthens the accountability of institutions, stimulates the efficiency of science, and promotes more innovation opportunities in many sectors. Data-driven digital technologies are instrumental in the development of smart cities to solve problems and make better decisions for are used to achieve a higher quality of urban life[3].

Logistics is the foundation of global, regional, and local supply chains and is the key to a modern, well-functioning society.. Digital technologies in the smart city facilitate communication between suppliers and customers, which reduces costs and improves service quality. Digitalization has proven to be important in shaping cities towards becoming more effective and efficient in terms of planning, management, and development. Digitalization, which is currently underway on a large scale, has revolutionized the business ecosystem and changed the value chain process in many industries. Smart city technologies facilitate communication between suppliers and customers, which reduces the risk of Cost and quality of service are improved [6].

The development of smart city applications requires a combination of several technologies. Therefore, understanding the role that emerging technologies can play in the development of smart cities can help develop efficient and effective applications that solve the socio-economic problems experienced in densely populated modern urban areas[3]. This study examines the concept of smart city and the role of emerging technologies, including artificial intelligence, machine learning, It examines deep learning and the Internet of Things in the development of smart cities and sustainable logistics.

This research helps to strengthen the conceptual understanding of the role of emerging technologies in the development of smart cities. Therefore, this study aimed to investigate the roles that digital technologies (IoT and artificial intelligence) have played in the development of smart cities and sustainable logistics.

2- Research Methodology

This research uses a qualitative method. This method is based on the content analysis of scientific and industrial journals related to the development of smart cities. The studies were searched online as well as by searching journals, articles, and articles. There was no time limit for conducting an electronic search. All articles published in either Persian or English were searched by searching the Google scholar database. Articles were searched using the Persian keywords Smart City, Sustainable Logistics, Digital Technology, Internet of Things and Artificial Intelligence, and English keywords Smart city, sustainable logistics, digital technology, Internet of things and artificial intelligence. The main sources of this research are journals, papers, and white papers related to the use of technology, especially artificial intelligence, machine learning, deep learning, and the Internet of Things in the development of smart cities and sustainable logistics .

The results were categorized based on the study of the concept of smart city, definition of smart city, challenges and opportunities of smart city, digital technology and its role in smart city and sustainable logistics. A categorical analysis of the results shows that a clear trend in the literature shows that digital technology plays a significant role in the development of the smart city.

3- Results:

This study allowed us to understand the implications of digital technology on smart city and sustainable logistics as seen in the literature.

-Smart City Concept

Urbanization processes are linked to the socio-economic and environmental protection of urban areas. The population of cities around the world is increasing rapidly. As a result, most cities around the world are at the peak of their search for approaches that can solve the new challenges posed by population growth. For example, they are looking for optimal solutions that can improve the efficient use of resources, effective management of the environment, energy, water, safety, transportation, etc. Facilitate transportation and public services. It helps to ensure that the billions of people who live in urban areas and the people who are expected to live quality lives in the future. In this regard, the concept of smart city is slowly becoming a reality. In the 20th century, smart cities were works of science fiction. But today, governments are developing thanks to emerging technologies, the development of telematics, and the improvement of the intelligence of devices. They start smart cities [7].

As a result, most cities around the world are at the peak of their search for approaches that can solve the new challenges posed by population growth. For example, they are looking for optimal solutions that can facilitate the efficient use of resources, effective management of the environment, energy, water, safety, transportation, and public services [7]. It helps to ensure that the billions of people who live in urban areas and the people who are expected to live quality lives in the future. In this regard, the concept of a smart city is slowly becoming a reality. In the 20th century, smart cities were works of science fiction. But today, governments are starting to develop smart cities thanks to emerging technologies, the development of telematics, and the improvement of device intelligence.

In addition, technology is essential to support the development of automated systems that enable people to monitor, understand, and plan urban areas. Therefore, the intelligence of cities relies on the creation of smart infrastructure and the connection between technology and people. In addition, according to Arup et al. [8], the intelligence of a city must depend on a variety of factors, including sustainability, Respect intelligence and inclusivity. Sustainability involves improving urban and environmental relationships and can include the use of the green economy. Intelligence means awareness of governance and the economy, while inclusivity involves fostering economic and social cohesion.

The smart city uses information and communication technology to improve the quality of life of citizens, strengthen the economy, facilitate the process of solving transportation and traffic problems through proper management, encourage a clean and sustainable environment, and create accessible interaction with the relevant government authorities .

- Smart City Definition:

Until now, a universal and generally accepted definition of a smart city has not been developed that fully explains the nature of the concept. According to the main component around which the smart city is explained, two groups of definitions can be identified. The first includes the definitions that link the city with technologies (technology orientation). The technology dimensionis one definition due to the use of technological infrastructure, especially modern information and communication technology (ICT) to improve the quality of life in the city [8]. Accordingly, a smart city can be defined as follows:

- A well-defined geographical area where advanced technologies such as ICT, logistics, energy generation, etc., work together to create benefits for citizens in terms of well-being, inclusion and participation, environmental quality, and smart development
- The urban center of the future – safe, protected, environmentally friendly and efficient because all structures (e.g., electricity, water, transportation) are designed, constructed, and maintained using advanced, integrated materials, sensors, electronics, and networks. It is associated with computer systems consisting of databases, tracking, and decision-making algorithms.

-Smart City Dimensions

Many of the structural elements of smart cities have been demonstrated. Vishnevitskaya and Alexandrova (2018) claim that they interact with each other and thus increase the contribution of each of them due to the development of the city in the effect of synergy. In the component explaining the nature of the smart city, government, people, and infrastructure are popular, while education and energy are less demonstrated..

Although there is no agreement on the exact definition of a smart city, its six dimensions have been determined. It concludes that a smart city is a city that integrates the economy, people, life, environment, governance, and mobility based on new information and communication technologies . Lombardi, Giordano, Farouh, and Youssef state that these dimensions are based on theories of regional competition. Transportation and information and communication technology, natural resources, human and social capital, quality of life, and citizen participation in the management of cities. The context of smart city development has different dimensions. The dimensions include individuals, society, and technology.

Smart cities are generally planned based on the four pillars of institutional infrastructure, physical infrastructure, social infrastructure, and economic infrastructure. The dimensions of

smart cities are built to support these pillars. Each component itself contains sub-components, which are further explained by a set of actions[11]. Therefore, for the implementation of a smart city, it is necessary to consider the implementation of various smart city paradigms , which include aspects such as smart economy, smart mobility and transportation, smart environment, smart living, smart governance, smart people, and smart economy (Figure 1).

Figure 1- Dimensions of Smart City

Below is a brief discussion of the features of the above smart city.

1) **The smart economy refers** to the competitiveness of a city with a focus on innovation, entrepreneurship, trademarks, productivity and labor market flexibility, and integration into the domestic market.. Information and communication technologies (ICTs) are used to develop e-commerce and e-commerce and to increase opportunities related to the production and delivery of services and innovations, as well as new products, services, or business models [12].
2) **Smart people** are essential for a cohesive, learning, cultural, and business aspects of smart people**.** The next part of the population includes a human city, a conscious city, and the human and social infrastructure necessary for the development of smart cities (Pozdnikova, 2016). Urban centers cannot achieve intelligence without people's intelligence. People should be educated, educated, and aware. They play a key role in improving the competitiveness of urban areas by helping to develop the information economy workforce. Smart people can live lives based on better education and skilled workforce. It is related to the competencies and education of city dwellers, as well as social interactions related to the integrity and public life and openness to the world. Information and communication technology serves to increase people's creativity and innovation and increase access to education and training. Ultimately, the goal of smart societies is to integrate the necessary number of city dwellers into information technology in order to improve their quality of life.

3) **Smart governance** is mainly characterized by effective and efficient public administration, the quality of public services, and the participation of residents in decision-making about the city. Information and communication technology (ICT) is used in e-management, to improve democratization and service delivery, as well as to support decisions made by government officials.. The presence of technology gives the smart city the opportunity to be more creative, improve governance, and improve the quality of life[13]...
4) **Mobility** refers to accessible and accessible services and information and communication technology, as well as sustainable transportation. Electric public buses are just one example. Transportation management is essential in all urban locations. Cities face various transportation challenges, such as congestion and poor transportation networks. Smart cities must be able to use a variety of systems, such as transportation management systems and systems.Traffic controls, which have evolved over the years to support effective and smart mobility in cities (Arup et al., 2016). In addition to such systems, smart cities can use technology to develop strategies that can meet the needs of current population mobility in urban centers and the expected growth of urban population in the future.
5) **The smart environment** refers to the natural living conditions in the city (e.g., green areas), pollution and resource management (e.g., reuse and replacement of resources), and environmental protection. Solutions that prove the smart environment include effective waste management, the use of renewable energy sources, and green urban planning. Information and communication technology is used to improve the ecological systems of the city. According to As the population grows in urban centers, cities must strive to achieve a smart environment. Smart environments involve the use of green and natural energy sources with less pollution for the environment. Waterways, sewage, and green spaces must be managed in a smart way.
6) **Smart living** encompasses various aspects of the quality of life. City officials should pay special attention to the health, safety, culture, and living conditions of residents. An important aspect is also the stimulation of tourism and information about entertainment events, leisure and nightlife. Social initiatives supporting information and communication technology are used to create or improve existing lifestyles, as well as to improve the safety and health of the people who reside. Smart cities need to support people's smart lives. People need to be able to create smart ways of living through IT. In smart cities, connecting devices using information technology makes it easier, safer, and cheaper for people to perform many daily tasks. For example, a smart building may consist of multiple interconnected devices that allow managers to collect data, analyze data, and make appropriate decisions with the goal of effective building management. This allows for the smart life that smart cities should support[9].

The dimensions of the smart city show that the development of the city does not depend only on hard infrastructure (physical capital). It also forms the availability and quality of intangible capital (human and social capital). Modern information and communication technology is required for the city. Its performance depends on the access to the communication network, mobile devices, and the infrastructure connected to them. In addition, information technology helps cities respond to the changing needs and needs of residents faster and optimize services[10].

However, when creating value for stakeholders, it is necessary for local authorities to work closely with residents and other stakeholders in defining the desired services, prioritizing needs,

and providing services quickly and reducing service costs. should accelerate the development of the city. In the context of the role of people in the development of smart city, it is important to promote investment in human capital and the development of soft skills among society.

-Smart City Challenges

Cities are exposed to various challenges, such as floods and the phenomenon of greenhouses. However, the major areas that can limit the successful implementation of smart cities if they are not addressed are economic, social, demographic, and environmental factors. These aspects should be highlighted when implementing smart cities. In addition, it is important to pay attention to areas such as transportation and health, which are the main barriers to achieving fully smart cities.

Transportation congestion and pollution effects – Transportation problems in cities are due to various challenges that affect people's well-being. One of the main barriers to achieving smart cities is the dominance of private cars. The dominance of private cars is a big problem for the future of smart cities, given the large amount of energy that cars consume. Although smart cars provide privacy and convenience for owners, the amount of air pollution they produce is a big problem. They emit dangerous gases and noises that pollute the air and the environment in general. In addition, the presence of too many cars leads to an increase in congestion and accidents in cities. This poses a major challenge for the development of smart cities. The development of transportation systems that are able to meet the needs of people in a green environment is problematic. Perhaps a good course of action could be to adopt other modes of transportation, such as walking, cycling, and using public transportation, which can reduce congestion and pollution in cities. In general, cities with extensive and well-used transportation systems benefit from programs that simplify the experience for riders. Use of signs Digital or mobile apps to provide real-time information about delays enable passengers to adjust their routes on the flight.

Installing IoT sensors on existing physical infrastructure can help crews perform anticipated maintenance and fix problems before they become downtime and delays. For example, transportation startup Via, a New York-based company, is looking for a larger segment of the new market by integrating ride-sharing and public transportation. Via wants to play a pivotal role as cities, transportation authorities, and universities change their transportation services in the wake of the coronavirus pandemic.

Via's software helps cities integrate their public transportation systems by adding aspects of ride-hailing apps like Uber and Lyft to existing infrastructure . Cities can use Via to provide on-demand transportation and pre-planned pickups for people who don't live near bus stops. The service, which is offered in 24 countries, They can be accessed through a smartphone app, a computer, or with a phone call. The software can also be used to quickly identify unexpected increases in demand so that additional buses can be sent to a specific route. Previously, demographic changes were happening over the years, and public transportation adapted over time. Now, due to the pandemic, things are moving fast, while a city changes its transportation schedule every 20 years , and now thanks to data and algorithms that can be done more quickly[3].

Barriers to Healthcare – Healthcare is important in improving people's well-being. However, even people living in the most developed urban centers still face healthcare challenges such as overcrowded healthcare centers and high healthcare costs. Despite technology-based solutions, many people still don't use them. In order to solve such challenges, Stakeholders responsible for implementing smart cities should focus on e-healthcare. E-health can help reduce congestion and speed up the delivery of health care services to people with chronic infections.. The various solutions that e-healthcare offers to improve healthcare delivery include telecare and telemedicine, which helps provide healthcare services to patients

regardless of their physical geographical location. Medical care professionals can make disease diagnoses and recommend the right medication to patients without the need for physical presence.

In addition, smart cities can adopt and implement health, which is essential in improving communication, measurement, and monitoring of healthcare data in order to deliver real-time healthcare outcomes to patients.. As a result, the barrier to health care in the way of the development of smart cities is solved.

-Smart City Opportunities

Smart cities provide many opportunities for urban dwellers. Some of these opportunities include sustainable transportation systems and a green environment.

Traffic Reduction- Apps that reduce road congestion are more effective in cities where driving is common or buses are the primary mode of transportation. Real-time navigation alerts drivers about delays and helps them choose the fastest route. Smart parking apps direct drivers to available locations and the time spent finding them They remove the free location. For example, as far as the MCX Group is concerned, a close observation of the city's problems led to the implementation of a new product called City Scanner. It is the world's leading and fully automated system for implementing integrated mobile parking . A vehicle equipped with a City Scanner system scans the license plate and issues parking tickets for unpaid stops. Vehicle equipped with One City Scanner It saves the work of 20 inspectors who may be used in less patrolled areas[3].

As discussed earlier, smart cities can rely on smart transportation management systems that have the ability to reduce congestion on the roads, provide a better travel experience for citizens, and reduce response times to incidents. A good transportation management system should be able to support a variety of features, including the ability to sense and collect data through road sensors, social media, and the use of cameras. The data collected can be analyzed in real-time, allowing for faster decision-making related to transportation systems.

Air Quality – Achieving a green environment is a goal that smart cities can achieve. Awareness of the adverse effects of environmental pollution and the need to use renewable energies such as solar and wind power has increased. Additionally, smart cities can rely on technologies such as artificial intelligence to make energy production, consumption, and management smarter. Efficient energy management can be achieved through the creation of grids. Intelligence that can direct energy to consumers in an intelligent, efficient, and efficient manner [7].

Reducing Solid Waste- As low-tech recycling programs reach work limits, technology can further reduce the volume of unrecycled solid waste. For example, digital tracking and payment for waste disposal charges users exactly for the amount and type of waste they dispose of[16]...

The chart below shows the Smart City market forecast in different years (Figure 2).

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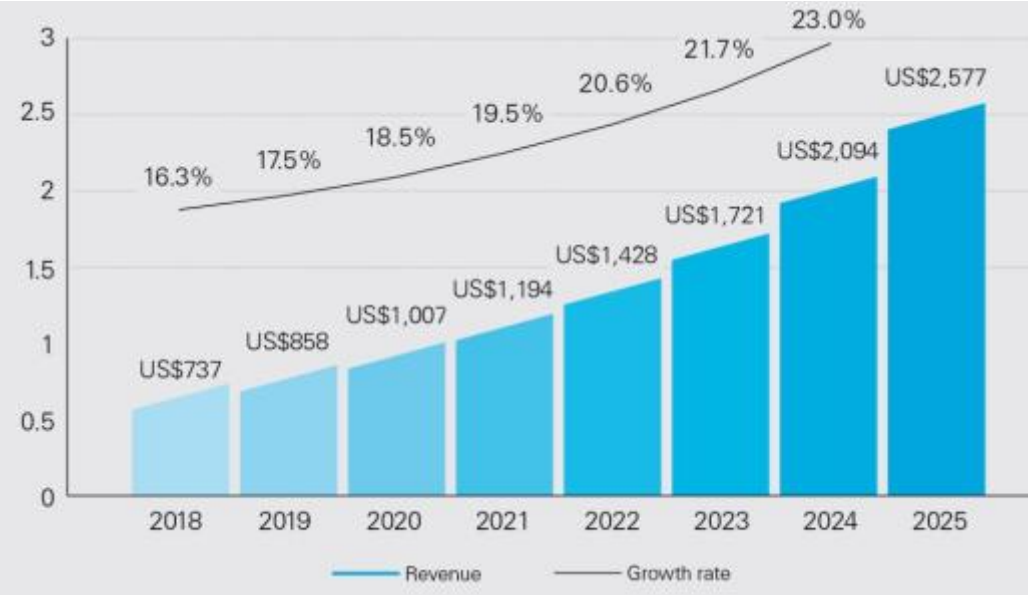

Figure 2- Grand View Research (2018)

-Digital Technology:

Smart cities rely on numerous technologies to provide sustainable social and economic development. Individuals and institutions in smart cities can be incredibly interconnected. All the components in smart cities should work as an integrated system that can provide citizens with access to quality services in real-time only using modern technologies such as artificial intelligence, Internet of Things, machine learning, etc. Deep learning and other technologies are achievable. The following sections discuss the different ways in which AI and the Internet of Things can be used to solve various problems and support the development of smart cities.

a) Artificial Intelligence

Artificial intelligence can provide numerous opportunities in the development of smart cities. Artificial intelligence can help make cities smarter by equipping them with advanced features. If implemented correctly, artificial intelligence can change lives .Below are some of the ways that AI can help implement smart cities.

Advanced security surveillance systems and cameras – Cameras and surveillance systems with artificial intelligence can be essential in the development of a smart city.They can monitor the environment to provide higher levels of security. The cameras have facial recognition capabilities, which can help track unusual activity in confined areas. In addition, AI cameras can monitor crowd density and track the movement of cars throughout the day. This monitoring can help manage transportation and congestion systems in cities. Most importantly, with security cameras, smart city officials can monitor crowds and identify potential insecurity or terrorist incidents . As a result, the authorities can take appropriate measures that can help thwart criminal activity in the city.

Intelligent waste management systems – Billions of people who live in cities generate large volumes of waste. As a result, waste management is a big challenge in cities. Cities are trying to figure out the best way to manage waste in cities to keep the environment clean. Such challenges can be solved using artificial intelligence. Cities can install. Smart Sensors in Trash Bins These sensors can send notifications to garbage collection authorities when the bins are almost full. This can make garbage collection more efficient and cost-effective. Garbage collection processes can be cost-effective as authorities can prevent unnecessary garbage collection trips and collect garbage only when the bins are They are almost full**.**

Smart Healthcare – Artificial intelligence plays an excellent role in the healthcare industry. It can help solve various healthcare challenges faced in most cities. For example, doctors can use AI systems to analyze large amounts of healthcare data and provide effective healthcare services to patients. It is

especially important in e-healthcare, where doctors need to provide remote healthcare to patients. With such capabilities, doctors can make decisions faster and provide appropriate health services. Such efficiency can improve people's lives, thus supporting the nature of smart cities, which is to improve the lives of citizens[19].

b) IoT

In most parts of the world, the internet is used as a means of transmitting and collecting data. However, due to the large number of devices and the connection of sensors, this is changing. The connection of a large number of devices capable of collecting data formed the basis for the development of smart cities. The use of IoT applications will be very beneficial in the development of the smart city[16]. Table (1) shows the possible IoT-based links.

Table 1 – IoT Links

Smart Appliances Health Entertainment Security	Houses
Car Parking Essential Services Traffic	Transportation
Environmental Management Surveillance	Community
Intelligent Energy Management Smart Water Networks Security Management	National Expenditures

Below are some of the ways that IoT is helping in the development of smart cities.

Smart grids – Creating smart energy sources that serve a rapidly growing urban population is an important step towards building smart cities. Smart grid refers to computerized power grids. It also includes the integration of digital communication technologies that support direct connectivity with the energy grid. The most important feature of IoT smart grids is the international engineering computerization technology that allows the power grid to set up and control millions of smart devices connected to it from one place.

Smart Water Management – IoT is crucial in managing water systems. With IoT systems, households connected to the smart water grid can monitor their use of water resources in real-time. This helps them improve water use efficiency in smart cities. Water use efficiency in smart cities is important because it supports the efficient use of necessary resources in cities. Additionally, authorities can use smart IoT systems to monitor water leaks or illegal water connections. This can help fight water criminals in major cities around the world. It can also help reduce the waste of water resources that result from water leaks.

Intelligent Transportation Systems – Artificial intelligence alone is not enough in the development of intelligent transportation systems. IoT can be essential due to the large number of devices connected to communication systems that report traffic flow and other transportation issues.

This means that large volumes of data are needed to provide patterns that can be used to predict traffic movement and congestion in time. Real to be used, transmitted and analyzed. As a result, city authorities can effectively manage traffic flow in cities.

Smart waste management – Smart waste management is important for all cities in the world. Smart waste management is possible through the implementation of systems that can monitor waste levels in trash cans and send garbage collection notifications when the bins are almost full. This can be done by embedding sensors in the bins so that they can report the amount of waste in real-time. Moreover, through IoT, cities can develop IoT applications that citizens can use to know about the trash cans around them to dump garbage. Having such apps can make their lives and the work of garbage collectors more efficient, as they don't have to load garbage in bins beyond their capacity. Such systems are designed to work with IoT and artificial intelligence are reliant. They can play a key role in waste management in smart cities [19, 20].

Logistics & Supply Chain Management

The term logistics generally refers to activities that are demand-driven. The requirements of objects, people, and material goods, but also services, information, and energy. Logistics activities are carried out throughout the entire value-added process. For example, in logistics logistics, they start from receiving the goods and move on to production logistics, which regulates domestic transportation. Finally, all the finished goods are sent to the customer by the distribution logistics. Due to the increasing role of logistics in enterprises, various areas of logistics are constantly being optimized, Because a lot of potential has been identified here. LogisticsOne extends along the entire value chain as well as supply chain management[21].

Many authors differ on the exact definition of the term supply chain management. .Fisher sees the supply chain as a sales channel that connects production sites to the customer. Supply chain management therefore covers the entire network of partners along the value chain, from delivery and production to disposal or recycling.. Flows of materials, information, and liquidity are considered with the assumption of improving social relations between participants and keeping exchange costs as low as possible. In particular, exchange costs can be significantly reduced due to the gradual development in the field of information technology (IT).

In order to understand the application opportunities of digitalization in logistics, it is first necessary to distinguish the conditions of digitalization, digitization, and digital transformation before elaborating further on the application of various digital technologies in the transportation and logistics sector. Digitization is about creating a digital image of similar physical objects such as paper documents and microfilm images or photographs, and extracting data from digital files in order to automate processes. This does not mean that the original document has been corrupted or disappeared over time . Digitization deals with empowering and transforming operations, functions, and business models by leveraging digital technologies and digital data. In addition, the continuous adaptation of digital technologies and working in a digital workplace using digital tools is part of digitalization. Therefore, digitalization goes far beyond the digitization of information. It favors new forms of processes or even the development of entirely new business models. In this way, it can be created as a prerequisite and the first step towards digital transformation and new digital revenue streams. Digital transformation means more than just a move towards digital commerce. It is a fundamental and accelerating transformation in business activities to take full advantage of promising digital technologies and their impact on industry and society in a strategic manner.. Therefore, we will mainly refer to actual digitalization, but we will also allow to expand our understanding of this phenomenon to digitalization[22].

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4. Discussion and Conclusion:

The smart city is a modern concept that faces the contemporary problems of urban life and aims to ensure the sustainable development of the city. Creating a city development strategy in line with the concept of smart city is important because cities play a key role in the social and economic phenomena that occur around the world and have global impacts on the environment and human life. Interest of city

authorities, communities, public institutions And the business to the smart city is visible in many cities regardless of their size, geographical location, or cultural environment. However, the smart solutions they implement are not the same. This is due to the cultural diversity, social awareness, investment in the research sector, and the level of socio-economic development of the country/region/city, linked to the available resources that can be allocated in the smart city areas. Farlink and Stanvika [23] found that a city is smart if the quality of life is improved due to the involvement of high-quality human and social capital and modern transportation and ICT infrastructure, as well as governance that is based on a participatory model of management and sustainable development laws.

Smart cities will solve the problems related to large populations in cities. With smart cities, resources will be managed efficiently. Cities will be efficient in governance and planning. In addition, transportation systems, waste management, and healthcare services will be effective. However, to achieve such benefits, cities will need to take advantage of emerging technologies such as artificial intelligence, the Internet of Things, deep learning, and learning cars. With such technologies, smart cities will be able to deliver sustainable socio-economic development. People and institutions will be super-connected in smart cities. All the components in smart cities will work as an integrated system that can provide citizens with access to quality services in real-time. Overall, Such technologies will be the backbone of the development of smart cities. However, smart people and smart communities will also be essential to having smart cities that bring value to people.

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