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An Analysis of the Impact and Reflection of Artificial Intelligence on Public Administration

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Review Article

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ABSTRACT

State institutions that provide public services needed by citizens are called 'public administration'. Recently, new management approaches in public administration in developed countries have also attracted attention. The digital age approach is seen as a prominent approach in this sense. It is a known fact that public services provided to citizens are significantly affected by the digital age approach. In this sense, the use of artificial intelligence in terms of increasing quality, effectiveness and productivity while providing public services to citizens comes to the forefront. The focus of the study is to conduct a analysis of the effects of artificial intelligence on public administration. First of all, an extensive literature review was conducted based on books, research theses, articles and expert opinions in the relevant discipline. In this context, the importance of artificial intelligence, which is an important phenomenon of the digital age, in terms of today's public administration understanding, in which areas of public administration it can be effective, the results it will have in public services and examples of artificial intelligence applications in public administration are discussed.

As a result of the study, although it is thought that artificial intelligence may create problems in terms of security in the long term, it is also seen that it can provide advantages especially in terms of service quality, productivity and effectiveness increase due to the continuous change in technology in the world. The interaction of artificial intelligence with governance principles such as transparency, accountability, and openness is of great importance in eliminating potential problems in this regard. Considering the rapid pace of developments in the field of artificial intelligence, the study reveals that it is necessary for all countries following this technology to utilize artificial intelligence in public administration. The study is expected to contribute to the effective implementation of artificial intelligence applications in the field of public administration by increasing the level of knowledge of the relevant segment.

Keywords: Public Administration, Digitalization, Artificial Intelligence, Productivity, Governance

Yapay Zekanın Kamu Yönetimine Etki ve Yansımasına Yönelik Bir Analiz

ÖZET

Vatandaşların gereksinim duyduğu kamu hizmetlerini onlara sunan devlet kurumlarına 'kamu yönetimi' denilmektedir. Son dönemde gelişmiş ülkelerde kamu yönetimi alanında yeni yönetim yaklaşımları dikkat çekmektedir. Dijital çağ yaklaşımı bu anlamda öne çıkan bir yaklaşım olarak görülmektedir. Dijital çağ yaklaşımından vatandaşlara sunulan kamu hizmetlerinin önemli derecede etkilediği bilinen bir gerçektir. Bu anlamda vatandaşlara kamu hizmetleri sunulurken kalite, etkinlik ve verimlilik artışı anlamında yapay zekanın kullanılması ön plana çıkmaktadır. Çalışmanın odak noktası; yapay zekanın kamu yönetimi alanına etkilerinin bir analizini gerçekleştirebilmektir. Çalışmada ilk olarak ilgili disiplinde yer alan kitaplar, araştırma tezleri, makaleler ve konu uzman fikirleri temelli geniş literatür taraması gerçekleştirilmiştir Bu bağlamda dijital çağın önemli olgusu olan yapay zekanın günümüz kamu yönetim anlayışı açısından önemi, hangi kamu yönetimi alanlarında etkili olabileceği, kamu hizmetlerinde doğuracağı sonuçlar ve kamu yönetimi alanında yapay zeka uygulama örnekleri ele alınmaktadır.

Çalışma neticesinde yapay zekanın uzun vadede güvenlik anlamında sorun yaratabileceği düşünülse de dünya da teknolojinin sürekli değişmesi hasebi ile bilhassa hizmet kalitesi, verimlilik, etkinlik artışı anlamında avantajlar sağlayabileceği görülmektedir. Yine yapay zekanın şeffaflık, hesapverebilirlik, açıklık gibi yönetişim ilkeleri ile etkileşimi bu anlamda ortaya çıkabilecek problemleri ortadan kaldırma açısından büyük önem taşımaktadır. Yapay zeka alanındaki gelişmelerin süratle devam ettiği göz önüne alınırsa da teknolojiyi takip eden tüm ülkelerin kamu yönetimlerinde yapay zekadan yararlanma gerekliliği çalışma neticesinde görülmektedir. Çalışmanın ilgili kesimin bilgi düzeyini artırarak kamu yönetimi alanındaki yapay zeka uygulamalarının etkin bir şekilde yürütülmesine de katkı sağlaması beklenilmektedir.

Anahtar Kelimeler: Kamu Yönetimi, Dijitalleşme, Yapay Zeka, Verimlilik, Yönetişim

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Introduction

The state institutions that provide the services that citizens need in the fields of education, health, security, transportation are called public administration. Phenomena such as globalization, advances in information and technology, and people's expectations necessitate some changes in public administration. In this sense, one of the areas of application for artificial intelligence is public administration. There is no consensus on the definition of artificial intelligence, and defining the concept is not easy. The reason for the difficulty in defining the concept of artificial intelligence is the rapid developments in the field of artificial intelligence. From this perspective, definitions and classifications are shaped by technological developments. In addition, the first association that the concept of artificial intelligence creates in people's minds is usually science fiction robots. However, the concept of artificial intelligence is different from the concept of robots (Gözübüyük, 2021:56-57). Definitions of artificial intelligence converge on the common point of a computer or a robot controlled by a computer having the ability to perform services often associated with intelligent entities. The purpose of using the concept of artificial intelligence is to develop systems surrounded by intellectual processes unique to humans, such as reasoning, discovering meaning, generalizing, and learning from past experiences.

While the changes and developments in the world and globalization have significantly affected public administrations, all public officials, including public administrators, have started to be interested in the concept of artificial intelligence. Artificial intelligence was first introduced by Alan Turing in the early 1950s with the question 'Can machines think?' (Turing, 1950:442) and then this question was tried to be adapted to many disciplines where artificial intelligence could be applied. In this direction, the main question sought to be answered in the study 'An Analysis of the Impact and Reflection of Artificial Intelligence on Public Administration' conducted in the field of public administration discipline is: can artificial intelligence have an impact on the field of public administration and if so, in which direction? The main purpose of the study is to analyze the effects of artificial intelligence shaped within the framework of this question on the field of public administration, and a detailed theoretical literature review has been conducted in this direction.

The use of artificial intelligence in public administration may offer many opportunities, it can also provide disadvantages in the long run. In public administration, the advantage of the concept of artificial intelligence is seen in terms of saving public servants and financial resources by allowing some services that can be done by a human to be realized with more data and more quickly, while the disadvantage can be seen in the field of security. Recent developments in artificial intelligence continue to increase and spread rapidly. Many countries, especially Western and Far Eastern countries, have started to use artificial intelligence systems. In Turkey, developments in this field have recently gained momentum.

The study first examines the concept of artificial intelligence within the framework of its terminology, purpose, history, and characteristics. Subsequently, the subject of public administration, one of the disciplines that has embraced artificial intelligence technology worldwide, is examined in the context of its terminology, transformation process, and models. In chapter 3, the relationship between artificial intelligence, which possesses the ability to perform mental functions such as learning, problem-solving, and decision-making, and public administration is evaluated. This section examines artificial intelligence technology in terms of public services, identifying its advantages and disadvantages for public administration and providing an analysis in this area. Furthermore, considering the rapid pace of developments in artificial intelligence technology, the study offers a number of recommendations in this field. Furthermore, the study focuses on the impact of artificial intelligence on public administration, particularly in terms of efficiency and governance. The study was conducted using qualitative methods, and a literature review was performed as a data collection tool. Ultimately, artificial intelligence is an important technological development, and the existence of AI-based applications in the field of public administration is necessary in line with governance principles.

Artificial Intelligence: Conceptual Framework

The phenomenon of artificial intelligence, which has gained increasing popularity in recent times, has established itself as a universal field both in literature and in everyday life. Computer technologies, which have developed at an astonishing pace in recent years, have led to the emergence of artificial intelligence and intellect as the fundamental difference between humans and other living groups. Almost every day, news or information related to the concept of artificial intelligence is encountered on various media platforms. The mysterious nature of artificial intelligence is followed with curiosity by many people. Artificial intelligence is considered one of the most important technological developments of recent years (Güven, 2024:131) and there are many disciplines in the world that embrace artificial intelligence, such as computer engineering, philosophy, cognitive science, electronic science logic, statistics, decision theory, neuroscience, linguistics and cybernetics (Pirim, 2006:81;Howard, 2019:918) and more recently, public administration. In this section of the study, the concept of artificial intelligence is examined in detail in order to provide the reader with a theoretical background on the subject.

Definition, Terminology, Purpose of Artificial Intelligence

In the literary, it is seen that the definition of artificial intelligence has changed with the advancement of technology. In 1956, considered by many researchers to be the modern beginnings of artificial intelligence, artificial intelligence was defined as 'the science of making intelligent machines, especially intelligent computing programs' (Innova, 2020:3). During this period, work on artificial intelligence was particularly concerned with topics such as problem solving and symbolic methods Today, artificial intelligence is mainly aimed at developing and contributing to human competencies. In this respect, artificial intelligence today is most simply defined as systems that imitate human intelligence in order to perform certain services and that can improve themselves by repeating the information collected (Gtech, 2021:2-3). And the underlying principle of artificial intelligence is that a computer or computerized robot can perform tasks related to rational beings (Küçükali&Coşkun, 2021:127). The potential of AI is huge, and to fully realize this potential, it is necessary to be familiar with the terms that describe it. All of these terms differentiate AI from other concepts and achieve information into the internal affairs of this new technology (Hoş, 2023:1). Considering that a better understanding of a theme is closely connected to the clarification of the basic concepts related to the subject; in this sense, artificial intelligence terms that should definitely be known can be expressed as follows with the help of a table;

Table 1. Artificial Intelligence Terminology

*Data:*An array of qualitative and quantitative variables related to one or more persons or objects
Algorithm: Solving a problem by applying well-defined rules and procedures step by step
*Machine Learning:*A method of analysis grounded in the code that systems can learn from datum, describe patterns, determine with little intervention
*Deep Learning:*Machine learning technique developed to enable higher cognitive functions to be performed by computers
*Natural Language Processing:*Technology that enables human and computer interaction with natural languages
*Computer Vision:*The ability to understand images by computer
*Cognitive Science:*The discipline that studies different procedures of the one brain such as linguistics, information processing, discretion
*Tutored Learning:*A model that requires datasets covering meaningful features
*Learning Without a Tutor:*Approaches to clustering by calculating different information such as proximity of data with unknown category and characteristics

Source: CBDDO, 2024:5-7

The most common AI terms to know are expressed in the table. Among these artificial intelligence terms, the concept of 'Data' is known as the foundation of artificial intelligence. 'Deep Learning' and 'Machine Learning' are the two main forces in artificial intelligence applications. This is because the main characteristic of intelligence is the ability to learn, and although robots are the first to come to mind when we think of artificial intelligence technologies, it is not just a material entity. Robots today are systems that are capable of learning and can make decisions and take action in new situations (Dereli, 2020:121-122).

Although the beginning of studies on artificial intelligence technologies can be traced back to the 1940s, the main interest in the field of artificial intelligence has increased in the 2010s. The reason for this is thought to be the changes in data, machine learning, and the processing capability of computers in the 2010s (Kutluk, 2022:208)

In general terms, the purpose of an artificial intelligence system is expressed in 3 articles. These are (ITU, 2024:5);

-Enabling machines to become smarter

-Clearly understand the concept of intelligence

-To make machines more useful

As can be seen, the artificial intelligence system is based on displaying intelligent behavior and its main purpose is to artificially reveal the intelligent behavior of living things in nature (Genesereth&Nilsson, 1988:1).

History of Artificial Intelligence

Artificial intelligence is considered the most important revolution in technology since the invention of the computer. The first examples of the concept in history are thought to be Aristotle, who discovered a set of principles for the purpose of rational conclusions. But for the first real examples of artificial intelligence, it is required to go back to the 1930s with Alan Turing, known as the father of artificial intelligence. The origin of artificial intelligence is an article on computing machines and intelligence published by Turing in Mind in 1950, which focused on the question 'do machines think or not? (Innova, 2020:1-2;Turing, 1950:433). Although Alan Turing is considered to be the father of artificial intelligence with this article, the term ''artificial intelligence'' was first used in an artificial intelligence workshop organized by John McCarthy at Dartmouth College in 1956 (Coşkun&Gülleroğlu, 2021:949).

Although its theoretical origins were laid by Turing, the first use of artificial intelligence was on the agenda at the Darthmouth Conference organized by John McCarthly in 1956 (Crevier, 1993:49;Moor, 2006:86). John McCarthy defined artificial intelligence as 'if a machine performs a task that is considered intelligent in the human sense, then it is intelligent' (Wolfgang, 2016:6). This event also featured prominent figures in the field such as Marvin L. Minsky, Nathaniel Rochester and Claude Shannon. In 1972, the first human-like intelligent robot was built in Japan under the name WABOT-1. Between 1974 and 1980, however, AI was criticized in many publications. Under the influence of these criticisms, many states have not allocated funds for studies in this field. This period has been called the 'Winter of Artificial Intelligence'. However, in the 1980s, the UK allocated funds to artificial intelligence because the UK wanted to compete with Japan in this field, in this direction, the notion of artificial intelligence has come to the agenda again (Coşkun&Gülleroğlu, 2021:949). Then, after the 1980s and 2000s, there was a rise in the field of artificial intelligence in terms of both theory and practice. In this sense, media tools have played a very important role (Kopar, 2023:5-9). However, in 2007, discussions began about when a better-than-human artificial intelligence could emerge and whether this would be the end of human work. In this sense, it was even stated that the period between 2025 and 2072 is the period in which an artificial intelligence better than human can emerge. Finally, an artificial intelligence security summit was organized by Bletchley Park in the UK in 2023. At the summit, it was stated that artificial intelligence can follow unwanted targets, the black box problem may arise, algorithms may get out of control, and it is not easy to define all ethics specifically (Değirmenci, 2024:256).

However, despite all the discussions, the current period is a period in which phenomena such as deep learning and big data, which stand out in artificial intelligence applications, are also at the forefront. In this period, there is a rise and development in widely used artificial intelligence tools such as virtual assistants and search engines (Kopar, 2023:5-9). One of the most important developments in terms of artificial intelligence in this period is the effort to move the concept out of the laboratory and adapt it to real world needs. What is new in this sense is the emergence of wider areas of use for service recipients, whose needs were previously met by classical processing methods, with more economically viable software and tools (ITU, 2024:9). In summary, in terms of the history of artificial intelligence, it is seen that as technology advances, the concept of artificial intelligence is gaining more and more importance day by day and will continue to do so.

Artificial Intelligence Features

AI is inspired by human intelligence, and it is thought that AI technology can realize the functions of human intelligence (Şen&Yurtoğlu, 2020:25-28). Intelligence is basically the ability of people to think, comprehend, reason and interpret events. As can be seen, intelligence is a human ability, especially the ability to infer later stages of events. With the development of technology, it has been seen that technical developments can be achieved that can perform certain activities instead of humans within the framework of certain algorithms. In its simplest form, artificial intelligence can be expressed as the skill to perform behaviors that are considered intelligence when performed by humans with machines (Dereli, 2020:115).

The primary feature of an artificial intelligence program is the use of symbolic information rather than numbers. This information represents concepts, rules, and objects similar to the facts that a human considers when thinking about them. Another feature of artificial intelligence is the concept of heuristic methods, which are the opposite of classical methods. In terms of program development, it consists of the complete description of a sequence of operations aimed at solving problems in a specific programming language (Cebesoy&Gezen, 1996:97). Artificial intelligence, which possesses human-like mechanisms, is undergoing rapid development both conceptually and in application, achieving qualitative improvements in 7 different areas. The areas where artificial intelligence provides qualitative improvements are as follows: algorithms for identifying and determining objects and events, conversing and communicating, making rapid decisions based on prediction and analysis within big data to solve previously unsolvable problems much more quickly and effectively, automatically operating specific targets or processes, creating autonomous and independent systems, quickly identifying specific patterns, groups, designs, or tendencies within big data and classifying new topics accordingly, and customizing them according to organizational requirements (Efe, 2022:100).

Types of Artificial Intelligence

There are 3 types of AI that help in the realization of everyday services and whose ultimate goal is to increase the productivity of the service (Albasoft, 2022:1). These are called strong (general) artificial intelligence, weak (narrow) artificial intelligence and superintelligent artificial intelligence. The philosopher John Searle first introduced the concepts of strong AI and weak AI in two different hypotheses he attributed to AI research. The weak AI hypothesis was that machines could be programmed to exhibit human-level intelligent behavior. The strong AI hypothesis was that it was possible to attribute conscious experience to machines, or to attribute thinking and understanding to them in exactly the same way as it is used to describe humans. In line with these hypotheses, weak artificial intelligence, also known as narrow artificial intelligence, is defined as systems designed to solve a single purpose, process or problem. Strong artificial intelligence, also known as general artificial intelligence, is a type of artificial intelligence that

has a strong human-level, independent structure and can solve problems other than the tasks given in programming. Super-intelligent artificial intelligence, on the other hand, is defined as artificial intelligence that can instantly solve problems other than the task assigned to it and surpasses humans in all areas (Karabulut, 2021:1521-1522). This type of artificial intelligence is more advanced and more comprehensive than powerful artificial intelligence. However, the development of this type is still only theoretical. For this reason, strong and weak artificial intelligence types are given more space in the study.

Although the origins and applications of strong and weak AI are different, the ultimate goal of both types is to assist in decision-making and increase efficiency. However, the functionality of weak AI is more limited and restricted. Below, the differences between strong and weak AI are expressed with the help of a table (Albasoft, 2022:2);

Table 2. The Differences Between Strong and Weak AI

Strong Artificial Intelligence/ Weak Artificial Intellligence
Strong Artificial Intelligence
*Hypothetical and Theoretical Artificial Intelligence
*Functions on human cognitive abilities
*Solve different problems and develop new approaches in this respect.
*Includes self-knowing and conscious machines
Weak Artificial Intellligence
*Practical artificial intelligence
*Human cognitive abilities do not work on
*Can only perform certain reasoning and problem-solving tasks
*Does not include self-aware and conscious machines

Source: Albasoft, 2022:2

When the distinguishing characteristics of strong and weak AI are examined, weak AI can be briefly defined as the ability of machines to be programmed and exhibit intelligent behavior. Strong artificial intelligence can also be described as the skill to program machines to become intelligent and conscious. However, it is important to note that there is a certain segment of the population that is against strong artificial intelligence. This group argues that machines are genetically different from human beings, that they cannot feel love, that they cannot discriminate between right and wrong, and that they cannot think like human beings (Pirim, 2006:85).

Public Administration: Conceptual Framework

The concept of public administration is a combination of the concepts of public and administration. The concept of management is generally defined as the whole process of directing and coordinating people in line with the goals set. The management process, which is not considered for a person who lives alone, is almost a necessity when more than one person comes together. The concept of public, on the other hand, is used in the sense of all the people or the public, and the root of the concept of public comes from the French word publique and the Latin word publicus (Gündoğmuş, 2021:3-4). In this section of the study, a general conceptual evaluation is made regarding the concept of public administration, which is formed from the combination of the concepts of public and administration.

Definition, Terminology, Purpose of Public Administration

Public administration generally refers to the organization and functioning of public power in societies. This definition includes all types of state functions and organizations. Governance is an essential element of state and social order. The existence and maintenance of this order depend first and foremost on the uninterrupted functioning of the administration. State and social order is maintained throughout the time the administration is in operation however, if there is a breakdown in governance, then social order can never be restored and even anarchy can occur (Berkün, 2017:640).

Public administration has existed since ancient times, when people came together, organized, cooperated and carried out different activities towards common goals. As it is known, since the early periods of history, people have established and managed different administrative systems and organizations, although they do not have the characteristics of a modern state. Social and political institutions such as tribes, clans, kingdoms, empires and nation-states have been created to meet the administrative needs of people. In this respect, public administration has played a significant act in the lives of people since the earliest times when they organized on behalf of society and carried out joint activities (Eryılmaz, 2019:3). The main concepts of public administration are public service, public duty, public interest, public personnel, public goods and public organizations. One of the most important concepts in terms of the state and public administration is public service, because public services provided to citizens are primary duties of public administration. Public service is the service provided to the public by public organizations in line with the principles of continuity, regularity and equality, either by themselves or with the permission of the responsible public organization. In fact, the human element of public administration is as important as the concept of public service in

public administration. The primary thing that comes to mind when it comes to public personnel is the personnel working in public organizations. Public duty, in short, is the contribution of people to the creation and functioning of the state public legal entity. A public organization is a primary organization that has a hierarchical link with the public legal entity of the state where public goods are used and public employees work in order to perform public services for direct public benefit or to provide public services to the private sector with indirect public benefit (Öztekin, 2015:10-11). Artificial intelligence and digital technologies are transforming not only the management of public administration, but also the public that differentiates it from private administration and makes it public administration. Public is defined in the dictionary of the Turkish Language Association as the whole of the people in a country, the people, the public, and the whole of the state organs that serve the public. The public in the definition of the public is no longer only composed of people, the state is changing its characteristics and both the organs of the state that provide services to the public and the services provided by these organs have changed considerably compared to the past. As the definition of the concept of public changes, the meanings of public service, public duty, public interest, public personnel, public goods, public organizations, and other important concepts and phrases related to public administration also change (Okçu, 2021:239). The main objectives and duties of public administration are stated in clause four of the legislation on the main aims of public administration and restructuring as follows; The main purpose of public administration is to facilitate the lives of people, to provide peace, security and prosperity, to increase the quality of life, to eliminate obstacles to individual rights and freedoms, and to execute the missions expressed in the legislation (5227, 2004). In short, the main purpose of public administration is to provide services to meet the requirements of people (Çamur, 2020:605). Public administration, as an important area of the state, is in a faster change and development process all over the world. The change brought about by globalization in public administration is an important reason that forces public administration to diversity. Reasons such as the inadequacy of conventional public administration in solving the problems encountered, the widespread privatization movements, the need for qualified personnel, political and administrative participation in decision-making mechanisms have led to this process (Eşki, 2009:491). While the 21st century has forced societies to change in many areas, computers, the internet and artificial intelligence have gradually entered the daily lives of all citizens in the last quarter century and have changed almost everything. We are now talking about a digital world with artificial intelligence at its center, and public administration faces a different and more technology-intensive demand for change (Okçu, 2021:215).

Public Administration Change Process and Public Administration Models

Recently, there has been a change in public administration all over the world. Items such as the evolution from industrial society to knowledge society, globalization, change in the understanding of the state due to reasons such as increasing economic and social expectations and the inability of the bureaucracy to respond to these changes are the dynamics of this change (Eşki, 2009:491). Public administration models in terms of change in the field of public administration are expressed as traditional public administration, development administration, new public administration and developmental public administration (Güner, 2014:66).The traditional public administration model is the public administration model that was valid from the second half of the 19th century to the last quarter of the 20th century. The intellectual foundations of this public administration model were laid by Woodrow Wilson, Frederick Taylor and Max Weber (Laurance&Lynn, 2001:147-149).

Bureaucracy is one of the main approaches shaping the traditional understanding of public administration. Weber, who first analyzed the concept of bureaucracy, states that the personnel working with large groups must be organized and managed in accordance with rational principles and that these principles are the same for all groups subject to a common authority or hierarchy (Okçu et al. 2020:298). In the traditional public administration model, the relationship between the administration providing services and the service recipients has become quite frayed. In this sense, artificial intelligence is a technology that can change and transform this relationship. In this field, the practices that are seen as a problem between the parties can be revised with the provision of public services with artificial intelligence. It is stated that artificial intelligence can be a remedy for undesirable situations such as stationarism, bureaucracy, inability to get quick results, loss of time, cost and labor, which are seen as the problems of traditional public administration (Tanrıverdi, 2021:311). The development management model is a model of public administration developed for 3. World Countries and its main task has been to examine the theories that define and explain the management of economic growth. The reason for not achieving the desired results with this model is considered to be the cultural structures of developing countries (Güner, 2014:66). Cultural data enables AI to learn about cultural norms and values and to use this information in its processes. AI systems should be designed to be meaningful and responsive in different cultural contexts. AI can be used to facilitate communication in multilingual and multicultural environments, and considering that AI systems can be effective in the representation of different cultures, this can also remedy undesirable situations in the development management model (Huang&Sturm, 2021:23). Later, market-based policies were adopted in the USA and the UK and a new management model emerged under the name of new public administration. This model aims to bring public administration closer to the private sector, and a management approach that considers citizens as customers on the basis of results-performance and emphasizes quality improvement has emerged (Ozan&Yolcu, 2021:582). After 1980, the understanding of public administration

underwent a significant change both structurally and functionally under the influence of certain methods and understandings applied in private institutions (Özer, 2017:29-33). This understanding has been the new public administration understanding. The focus of the new public administration approach has been the adaptation of private sector management methods to public administration (Zia&Khan, 2014:433). With the new public administration approach, data are digitized, processed, compared and analyzed. In addition, technological tools and applications enable stakeholders and partners to participate more actively and effectively in process management (Gezici, 2023:115). From the perspective of the concept of public service, which is changing with the new public administration approach, efficiency, effectiveness, and impact are at the forefront (Boztepe, 2018:197). As can be seen, within the framework of the new public administration approach, digitalization, increasing efficiency and effectiveness in public services, reducing bureaucratic procedures and developing a citizen-based management approach are essential elements. The integration of artificial intelligence technologies, which is considered as the last stage of the digital transformation process, into public administration (Boyalı, 2025:207) can be a positive innovation in this sense. The 4. model seen in the public administration change process is the developmentalist public administration model. This model is considered to be the best model among public administration models and it has common points with both the new public administration and the development administration model. These common points are that the new public administration model focuses on social justice, equality and people and the development model seeks solutions to the problems of developing countries. The views advocated by the developmentalist public administration model are; the necessity of not making a choice between equality and growth, the view that the basic needs of everyone in society should be met, and the provision of an efficiency that will ensure a more equitable distribution of benefits. The developmentalist public administration model is similar to the new public administration and focuses on people, especially social justice and equality (Güner, 2014:67). It is seen that artificial intelligence can be a positive innovation in this period. To summarize, there are many demands for change directed at public administrations at all times. Public administrations use different strategies to respond to these demands for change (Eşki, 2009:491). These strategies have to be evaluated together with digitalization. Digitalization is a strategic management factor used in public administration. In other words, the digitalization process has a key role in changes in terms of the structure and function of public administration (Tamer&Övgün, 2023:509). With the process of information and technological transformation in the field of public administration, the concept of artificial intelligence has moved to the present day. The concept of artificial intelligence has led to the emergence of many elements within the framework of the idea of how public services should be provided to citizens in the best way. The transformation that the concept has brought about in public administration is referred to as the 'Digital Age'. Developments in the fields of digitalization and artificial intelligence and the increasing use of this technology have led to an inevitable change and transformation process in the field of public administration. In countries that have adapted to this process of change and transformation, positive developments have occurred in many areas such as public security and governance as well as speed, efficiency and quality indicators in the realization of public services. However, it is also stated that it may cause new problems and debates in many areas such as privacy, freedom, social psychology (Güven, 2024:138-139).

Efficiency is of great importance for the development of successful and sustainable public policies and programs. Public administration aims to be efficient when implementing public policy decisions by converting them into programs. In this sense, efficiency emerges as an area where public policies and administration are both decisive and guiding. As stated above, although the efficiency factor has always been present in the historical process of public administration, from the perspective of the discipline of public administration, efficiency has become an increasingly important multi-variable function. When services are provided in public administration, the conditions for efficiency, considering the priority of public interest, can often be quite complex. Ensuring that public activities with different functions operate efficiently and effectively without neglecting these activities is related to the expression of the right policy objectives at the right time, taking into account all social and economic conditions and stakeholders, and the realization of these objectives with the right resources (Polat&Akçakaya, 2022:251-265). In summary, efficiency is of great importance for successful and sustainable public administration. The issue of efficiency in public administration is crucial in terms of the use of public resources, meeting the needs of society, and ensuring the public interest. The efficiency movement in public administration is said to have begun in the 1900s (Özdemir, 2010:v-vi). The issue of efficiency in public administration became a major topic of discussion after World War I. In fact, with the emergence of the new public management movement, supported by international organizations such as the Organization for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), and the World Bank, the issue of efficiency in public administration began to gain more prominence in response to approaches that described the welfare state approach as cumbersome, inefficient. And over time, the issue of efficiency in public administration has been accepted as a priority over other objectives (Polat&Akçakaya, 2022:251). Furthermore, while efficiency is one of the main elements referenced as an indicator of a management's success, the efficiency of a management is an important criterion in determining whether that management is considered successful. In this sense, artificial intelligence, which is gaining importance in 21st-century discussions, is being included in efficiency-focused management discussions. For this reason, the relationship between productivity and artificial intelligence is very

important. In summary, there is a strong correlation between the efficiency of governments in the 21st century and their use of artificial intelligence (Ekinci&Karakoyunlu, 2023:64). Additionally, the study examines in depth the impact of artificial intelligence applications on the efficiency of various processes in public administration under the heading of "Use of Artificial Intelligence in Public Administration." Furthermore, the study provides examples of artificial intelligence technology used with the goal of improving efficiency in public administration. Within the framework of these examples, it is evident that artificial intelligence in public administration will increase efficiency and effectiveness, enable effective governance, and that greater use of artificial intelligence in this field is necessary.

The fundamental principles of governance, within the meaning of the best management of administration, are transparency, participation, accountability, efficiency, and compliance. In fact, governance refers to a comprehensive framework that encompasses the ability of institutions to be fair and transparent in all their activities, to treat everyone equally, to be aware of their responsibilities, to value their stakeholders and their environment, to maintain continuous and consistent communication with them, to present themselves to them openly and honestly, and to build strong relationships with them by understanding them (Öksüz, 2014:186-188). The concept of governance is being used by public administration theorists in the public sector restructuring process instead of the concept of public administration (Fidan, 2011:5) and its success depends on the effective consideration and implementation of its principles. Governance principles can be expressed as a guarantee for all actors in society, such as public and private sector organizations, local governments, and civil society organizations (Uzun, 2025B:1). The concept of governance in public administration is based on a management approach that aims to be more effective and efficient, to increase participation in the decision-making process, to achieve a more democratic and transparent administration, to ensure accountability, and thereby to contribute to citizen satisfaction (İzci&Sarıtürk, 2017:181). Artificial intelligence, one of the most significant examples of technological transformation in this century, is causing fundamental changes not only in technical fields but also in management approaches in the workplace. For this reason, it is necessary to reevaluate the fundamental principles of governance, such as fairness, transparency, accountability, and responsibility, in light of artificial intelligence applications (Uzun, 2025A:3). Artificial intelligence is reshaping the understanding of governance and necessitates the alignment of traditional principles with technology. In line with this goal, public institutions are shaping governance practices with artificial intelligence (Uzun, 2025B:7).

-They should prioritize ensuring that artificial intelligence systems are transparent and auditable.

-They should expand accountability mechanisms to cover artificial intelligence decisions.

-They should regularly review data sets and algorithms to ensure algorithmic fairness.

-They should design internal controls that ensure ethical and legal compliance and monitor implementation through internal audit activities.

-They should analyze the anticipation and management of potential risks in the interaction between governance principles and artificial intelligence applications within the scope of risk management.

Today, many countries, especially developed countries, are trying to increase the potential of artificial intelligence use in this sense while reorganizing the internal structure of public administrations within the scope of appropriate infrastructure and policy preparations in terms of artificial intelligence support in public services. The efforts of governments in this sense reveal the importance of artificial intelligence in public administration in parallel with the development of artificial intelligence technology (Efe, 2022:100). The 3. section of the study clearly addresses the transformative impact of developments in artificial intelligence, particularly in terms of efficiency and governance, on the public administration process.

Artificial Intelligence and Public Administration

Artificial intelligence is an interdisciplinary research field that has recently gained importance in society, economy and public administration and provides many new opportunities (Wirtz et al. 2018:596). As artificial intelligence technology is developing day by day, its effects on public administration are inevitable. Since the industrial revolution, the development of technology every day and the rapid development of fast and intelligent machines cause artificial intelligence to become a part of everyday life. The main points of interest of AI technology in the field of public administration are goal orientation, guidance, social benefit, sustainability, which has been frequently emphasized recently, and the service of technology to society. In this sense, it is inevitable that artificial intelligence technologies and public administration are mentioned together (Erkul, 2022:1). With the integration of artificial intelligence, which is one of the main actors of change and development in the world, into the field of public administration, the topics expected to change in the field of public administration with artificial intelligence can be expressed as follows (Aydilek, 2023:4);

-Changes in the structure, duties and functions of the state

-Digitalization and acceleration in public services

-Much simpler access to services for ordinary citizens

-Transformation of hierarchical, traditional and legal structures in practice

-Changes in classical working and employment methods

-Automation replacing civil servants

-Development of autonomous mechanisms to meet administrative and financial requirements

The applications and impacts of artificial intelligence in public administration are continuously expanding and growing with pioneering applications around the world.

Artificial Intelligence Applications in Public Administration

Technology is dramatically transforming the lives of all humanity. From their daily lives to their working lives, people spend all their time integrated with technology. It is known that technology offers many opportunities that bring convenience to people's lives. It is also impossible for the public administration to remain indifferent to the transformation process in the digital age, which deeply affects and rapidly transforms people's daily lives and all aspects of social life. The transformation process in the digital age increases its impact on public administration with each passing time and the integration of technology into public administration is spreading (Gezici, 2023:114-115). In this sense, the use of artificial intelligence in the field of public administration is seen as one of the newest trends of the last period. Artificial intelligence applications in the field of public administration have started to be realized especially in terms of issues such as restructuring public administration, providing effective and efficient services, easily managing the requirements and processes in administrative and financial areas, and producing both fast and accurate solutions to problems (Efe&Özdemir, 2021:36). Artificial intelligence applications seen or planned in the field of public administration; artificial intelligence in the decision-making process, artificial intelligence in service delivery, artificial intelligence in the public policy-making process, artificial intelligence in the tax collection and public finance process, artificial intelligence in the public security process and artificial intelligence in the public transportation process. These AI-based applications in public administration are particularly effective in increasing efficiency, effectiveness, and good governance. Below are AI-based public administration applications that increase efficiency, effectiveness, and good governance.

Artificial Intelligence in Decision-Making

Choosing from two or more viable alternatives can be characterized as a 'decision' (Certo, 2003:25). Decision-making, on the other hand, is the ability to choose from existing and different alternatives in order to achieve certain goals (Daft, 2010:452). Artificial intelligence affects human decision-making processes in many areas. For example, decisions can be made based on artificial intelligence predictions in a wide range of areas, from financial analysis to medicine, logistics, and public administration (Erdoğan, 2024:100). When it comes to decision-making in organizations, Herbert A. Simon immediately comes to mind. According to Simon, decision-making is the most important part of the organizational management process, and Simon's main argument is that the qualities of the decision-making process determine the quality and success of an organization. According to Simon, management and decision-making are synonymous. The reason for this is that Simon considers decision-making as the heart of management (Özer&Kartal, 2021:56). Some decisions are quite simple, quick and easy to make, while some decisions are quite difficult to make due to reasons such as the complexity of the decision, the process of making it, the identification of alternatives, and the implementation of options. In addition, the uniqueness of problems and the unique nature of all decisions are among the factors that make decisions difficult (Clemen&Reilly, 2013:9). The degree to which existing resources and units will be affected in terms of decision-makers who have to find the option that is suitable for the target among the alternatives is also an important phenomenon in the decision-making process. It is not easy to make decisions in accordance with the constantly changing and evolving environment and conditions (İnce et al. 2021:58), and the decision-making process in organizations, whether private organizations or public organizations, is affected by many factors. The most important of these factors are the decision makers, the conditions in which the organization is located, time, the people and citizens who will implement that decision (Yılmaz&Talas, 2010:198).

Artificial intelligence can be defined as the ability of a computer or computer-assisted machine to perform human-like functions such as learning, analyzing, understanding, drawing conclusions, generalizing, recognizing, and making decisions (Öztürk&Şahin, 2018:24). Decision-making and the implementation of these decisions are important phenomena in public administration. In this sense, the use of artificial intelligence can be described as an efficiency-enhancing factor because this technology enables rapid processing, including rapid decision-making. In fact, artificial intelligence has a very powerful transformative effect on the decision-making process and service provision in public administration. The human brain has a complex structure that is programmed to make a decision to meet its different needs, and the human brain essentially makes decisions with two systems. These systems are intuition and rationality. The concepts of intuition and rationality are considered as natural evaluation and are useful in terms of making judgments about what is good or bad according to their content. What is desired to be achieved with artificial intelligence is to create a system that is parallel to human behavior that can make decisions rationally (Önder&Saygılı, 2018:646). In the decision-making process in public administration, especially the modeling of the information gathering step with artificial intelligence is considered by many as a situation that will improve this process. An information gathering process to be carried out by expert systems emerging with artificial intelligence will provide

both excessive and accurate information collection for decision makers in public organizations. In this sense, with the emergence of an artificial intelligence potential close to rational human beings, an artificial network will be formed that will enable the design of machines with programmed values and the formation of a mechanism that includes behavioral learning (Şahnagil, 2023:183). With the use of AI, organizations can gather and analyze significant amounts of data and then interpret it to gain valuable insights into public administration. The processed data allows public administrators to see social trends and important statistics. In this sense, more accurate policies and strategies can be produced regarding the lives of citizens (Innova, 2023:3). Hadden (1989) pointed out that artificial intelligence will improve decision-making processes and increase efficiency in public administration (Uzun et al. 2022:428). This is because the main difference between human decision-making processes and artificial intelligence in terms of decision-making is that artificial intelligence can produce solutions that a human cannot expect. The human brain cannot fully analyze the information it has due to cognitive limitations and time limitations, but the computational power of artificial intelligence allows the analysis of possible solutions that humans cannot consider (Scherer, 2016:364). In addition, the ability to receive real-time feedback, opinions and suggestions from citizens in decision-making processes through online surveys or social media is also an important benefit of artificial intelligence. This detailed approach encourages active participation for citizens, while transparency and trust for citizens are also encouraged by this detailed approach (Innova, 2023:3). Today, artificial intelligence and software algorithms are gradually developing and are expected to play an important role in public administration decision-making processes in the future (Warren, 2018:2737-2739).

In sum, the classical decision-making process in public administration is undergoing a comprehensive change. Artificial intelligence technology is a new field of technology that attracts a lot of attention with its high performance in public administration application areas. Artificial intelligence-based solutions in the public administration decision-making process are seen as a widely used tool, not only because they facilitate overcoming various problems, but also due to the advantages they offer in terms of cost, speed, efficiency, accuracy, reliability, and productivity (Kocaman, 2024:153). For example; artificial intelligence is a powerful tool that can communicate naturally with people, answer complex questions and offer creative solutions, especially through models such as ChatGPT, which revolutionized the field of language processing (Erdoğan, 2024:83). ChatGPT has the ability to write short texts on a particular topic, provide questions and answers, translate text, make suggestions, obtain information on topics of interest, and solve problems (Salvagno et al. 2023:1).

Artificial intelligence enhances public governance in areas such as big data analytics, risk management, and operational efficiency, which accelerate decision-making processes. The role of artificial intelligence in public governance goes beyond efficiency. Artificial intelligence technology can increase the effectiveness of the governance framework by providing real-time data analysis and prediction-based analysis, supporting better informed decision-making processes, more accurate risk assessment, and greater transparency in reporting (Aladağ, 2024:19). However, artificial intelligence often operates as a black box. This can sometimes make AI decisions incomprehensible even to those who use them. In this sense, the unpredictability of artificial intelligence can create a significant accountability gap. The black box nature of artificial intelligence systems can also make it difficult to understand algorithms and decision-making processes. This can create a negative situation in terms of compliance with the principle of transparency in governance. In this sense, it should be explained how artificial intelligence systems used by organizations work, what data they are fed with, and how they reach their conclusions, because the use of artificial intelligence requires responsibility in terms of ethical principles, personal data protection, and environmental impacts. To avoid these gaps, forward-looking training methods are needed so that corporate actors can be held accountable for the ethical and legal implications of deploying artificial intelligence (Uzun, 2025A:2). In this sense, the European Union is working on an artificial intelligence law. The artificial intelligence law aims to facilitate the development of a single market in terms of legal, safe, and reliable applications and to prevent market fragmentation. The algorithms to be used are intended to be particularly transparent and understandable for certain areas (Öz, 2023:7). As can be seen, artificial intelligence has the potential to increase efficiency in corporate processes through big data analysis, decision support systems, and automation, but it is crucial that this potential is aligned with corporate governance principles.

Artificial Intelligence in Public Service Delivery

With the development of artificial intelligence, a significant change and transformation process is emerging in terms of public service delivery. In this important process, the organization is expected to use applications that increase the quality of the service and reduce the cost, and to use new methods to deliver the service faster than before. It is hoped that artificial intelligence can meet this expectation (Erol, 2024:21). When public services are classified functionally, there are 10 main titles. These titles are general public services, defense services, public order and security services, economic affairs and services, environmental protection services, settlement and community welfare services, health services, recreation, culture and religion services, education services and social security and social assistance services. The relationship between public services and artificial intelligence, which is divided into 10 main functional headings, can be expressed as follows (Metaveri, 2019:3); in terms of general public services, the areas of use of artificial intelligence are health, education, disaster management, public administration and policy

applications, urbanization, public relations, employment processes, and in this sense, results such as improvement in health indicators, increase in education level and a more educated society, more effective and transparent policy applications in public administration, smart cities, more effective and faster solutions to public problems, fairness and transparency of recruitment processes are seen and expected. In terms of defense services, the areas of use of artificial intelligence are intelligence, strategic planning, and threat detection, and the observed and expected results include gaining superiority over the opponent through more accurate and precise information, making more realistic and targeted plans, identifying threats earlier and taking stronger measures. In terms of public order and security services, which encompass police and gendarmerie services, AI's use includes easier detection of crimes and criminals, more effective determination of police and gendarmerie patrol times and locations, and the expected outcomes. In terms of economic affairs and services, AI's use encompasses development and growth, decision-making processes, identification of public investments, and the elimination of cyclical imbalances. Its outcomes include strategic planning and more effective development, accelerating and increasing the effectiveness of decision-making processes, reducing the likelihood of errors in forecasts, identifying public investment areas, and enabling intervention mechanisms by identifying cyclical imbalances. In terms of environmental protection services, the areas of use of artificial intelligence are sustainability, externalities, biodiversity, climate change, waste management, marine cleaning, environmental taxes, and the expected results in this sense are preventing environmental degradation, achieving sustainable development, monitoring biodiversity and reducing climate change, reducing environmental pollution by improving waste management practices, creating cleaner seas by intervening in marine pollution, and ensuring the financing of environmental pollution by applying effective environmental taxes. In terms of housing and community welfare services, urbanization, social welfare, safe housing, and urban transformation are areas where AI is used. In this context, outcomes can be seen in addressing exclusion in social welfare and achieving social resilience, ensuring energy efficiency through the use of smart homes, and establishing effective pricing mechanisms through accurate housing price prediction. In public healthcare services, where AI is used in areas such as patient profiles, healthcare professionals, and community health, the expected outcomes include ensuring home safety through fire detection and natural gas leak detection, global problem-solving capabilities in healthcare, increased efficiency and service quality, increased productivity, optimized disease outcomes, and minimizing pandemic risks through air quality assessment. In terms of recreational, cultural and religious services, culture, librarianship and Islamic finance applications can be described as the areas of use of this new technology, and in this sense, positive results such as increasing the cultural level with smart libraries, ensuring the effectiveness of risk in Islamic finance and decision-making processes, and enabling the whole society to benefit from cultural services through digital cultural services are emerging and expected. As a public service, the use of artificial intelligence in education encompasses curriculum, learning processes, assessment, and distance education. The resulting and expected outcomes in this regard include increased effectiveness in curriculum creation and instructional management, contributing to more effective learning by offering new opportunities for personalized and autonomous learning, more effective assessment and evaluation mechanisms for determining learning outcomes, and minimizing potential risks in distance education and educational processes. Finally, in terms of social security and social assistance, which are citizens' rights and are administered by the state, the use of artificial intelligence will eliminate the human element in social services and create a more personalized and efficient social security system. Among the expected outcomes are the creation of a more effective assistance mechanism and a more personalized and efficient social security system (Aydın, 2024:175-176).

The processes of producing and delivering services in public administrations are becoming more complex over time. However, citizens expect their demands to be met quickly, accurately and with high quality. In this sense, the process is a scheduling problem that is not easy to plan. There may be too many task permutation possibilities in order to provide the best process plan in terms of a complex production procedure, and artificial intelligence-based methods are generally the dominant methods for solving this problem (Gezici, 2023:117). Considering the possibilities offered by developing technology, the idea of using artificial intelligence in this field is coming to the fore. Chatbots developed by public organizations are one example of this process. Considering the interaction of artificial intelligence with the public, public institutions can use the developed chatbots to directly inform citizens about services (Yıldız&Alper, 2023:523). Chatbots, which are conversational robots that enable users to communicate as if they were chatting with a person via messages in a digital environment and are used for purposes such as obtaining information and performing tasks, provide significant benefits in terms of enabling rapid communication between citizens and organizations and reducing the workload of employees (Şahnagil, 2023:183).

The number of personnel and budget are the most important factors in providing public services to citizens. The application of digital technologies to public service areas in the provision of public services offers significant savings in personnel and budget resources. This is possible with artificial intelligence (Aydilek, 2023:2). In addition, adding artificial intelligence-supported solutions to the processes in public administration facilitates administrative work, automates ordinary tasks and improves service quality. For example, online registration of citizens in identity card issuance processes, online applications for most public services, as well as predictive analytics, optimization of resource allocation, more efficient service delivery and improved results for citizens (Innova, 2023:3). In sum, the presence of AI in public services leads to faster, more efficient, effective and less costly delivery of public services.

However, the existence of criticisms such as the fact that artificial intelligence does not care much about ethical concerns and the fact that the personalization of services causes that person's private information to be shared more easily is a fact that must be taken into consideration (Aydın, 2024:171).

Artificial Intelligence in Public Policy Making

Regulating social life, finding solutions to problems between actors in society, and providing goods and services to society are among the important activities carried out by the state. Anything that governments choose to do or not to do is called public policy (Dye, 2013:3). Shangraw (1987) stated that artificial intelligence is an opportunity to operationalize the public policy making strategy (Uzun et al. 2022:428). Today, the possibilities offered by technology are increasingly being utilized in the process of public policy formulation and development. Governments have started to utilize the opportunities offered by fields such as artificial intelligence and big data in public policy processes (Kuşseven, 2022:60). One of the key responsibilities of social scientists is to decide which methodology is best for public policy making. There is a need for new methods that can help social scientists access the information needed in this field. Today, when it comes to the best help and method that can provide this help, the concept of artificial intelligence comes to mind first (Önder&Saygılı, 2018:650). Artificial intelligence offers innovative solutions to public organizations in many areas such as data analysis-decision support systems. It is certain that the application of this technology will have potentially sharp effects on all stages of the public policy-making process. This will enable policy makers to make more informed, efficient and effective decisions. AI-based decision support systems can analyze large data sets and provide solutions to complex policy problems. These systems help policy makers better understand the current situation and predict possible outcomes (Karaman, 2024:103).

The public policy-making process is a systematic succession of different steps. As this process unfolds, an agenda is first set regarding the problem. This step is the step of having information about the problem to be solved. The importance of this step manifests itself in attracting the attention of the authorities. Then, policies are created in terms of solving the problem and the one that can provide the solution is decided among the policies created. The step of implementing the decided policy is the last step of the public policy making process (Önder&Saygılı, 2018:650-651). In other words, artificial intelligence is a technology that can be integrated into the policy-making process. As this technology develops, automating more management and process-based tasks will increase the efficiency of public administration and enable public personnel to focus on more meaningful activities (Bozdağanoğlu et al. 2024:9). However, the integration of AI into the public policy-making process raises ethical and governance issues. It is important how AI systems are used in decision-making processes and the transparency, accountability and fairness of AI technologies. This requires the development of policies on how the technology can be used in the best way for the public good, taking into account the possible errors and drawbacks of artificial intelligence (Karaman, 2024:104). Finally, in terms of the public policy-making process, the nudge approach is a phenomenon that emerged in the late 2000s and has been articulated with artificial intelligence technology (Kuşseven, 2022:60). The nudge approach is based on the assumption that individuals cannot make good decisions in line with their own preferences and maximize utility accordingly (Corr&Plagnol, 2019:151-152) and is defined as the avoidance of behaviors that would result from the cognitive deficiencies of the individual and the guidance of policymakers to ensure that the individual achieves his/her main goals. This approach is particularly useful when classical policy instruments based on strict legal requirements have failed. However, nudging has not been widely used in public policy making due to two main constraints. These constraints are the lack of information technology infrastructure and the fact that the introduction of data-driven nudging in public policy raises both legitimacy and ethical concerns (Kuşseven, 2022:60-61).

Artificial Intelligence in Tax Collection and Public Financial Management

Within the scope of the general public administration understanding, it is adopted that the public financial management process is a part of the general public administration understanding of countries (Akyel, 2023:24). Today, the increase in competition that comes with globalization requires certain revisions in the state administrations of countries. In this sense, the abandonment of the old protective and institutional structure in terms of management and the adoption of more effective and more competitive forms of management manifests itself, the current structure cannot meet the needs of the system and the technological developments that are constantly emerging both globally and locally reveal the necessity for a new structure (Macunluoğlu, 2010:6). This reveals the importance of artificial intelligence, which is known as one of the important elements of the new structuring, in the financial process of public administration.

The ability to incorporate artificial intelligence into the tax collection and financial management process significantly accelerates efficiency in public administration. While the classical approach was characterized by more paperwork and manual data entry, today this approach is being abandoned in favor of artificial intelligence systems that can quickly process and analyze a significant amount of data. Systems such as these not only improve accuracy, but also significantly reduce human error and pinpoint inconsistencies and potential tax evasion. In addition, artificial intelligence tools can analyze financial transactions in real time With the contribution of artificial intelligence applications to the tax collection and financial management process, these areas are revolutionized and in this sense,

not only the financial competence of public organizations but also their efficiency in general is significantly strengthened (Yaldız, 2024:15).

Artificial Intelligence in Public Transportation

In the use of artificial intelligence in the field of public administration, it is actually the first step for citizens to be able to perform their public transactions in a digital environment in a short time without being in a public institution. The first thing that the public administration should do in the field of artificial intelligence is to direct IT institutions and strategy institutions to develop and learn about artificial intelligence, and to create the infrastructure and train experts to establish smart systems in all public organizations (Erbaş, 2023:192). Considering the complex nature of transportation systems involving multiple variables such as traffic conditions, passenger load, route optimization, machine learning, an important branch of artificial intelligence, becomes very important. In this sense, artificial intelligence can offer versatile solutions with unique potential in terms of efficiency, reliability and sustainability. Machine learning algorithms can compute traffic flow. This can enable intelligent routing scheduling, reduce congestion and reduce travel times. Artificial intelligence can also generate strong insights from passenger data, predict demand and help allocate resources (Yaldız, 2024:16). Artificial intelligence applications in the public transportation process are particularly used in predicting and managing traffic flows and addressing potential safety problems. As an example, SMRT Corporation, a public transport organization in Singapore, worked with the private company NEC on a pilot application using artificial intelligence to predict what public bus drivers will do (Erol, 2024:20). Considering the state of technology today, it is noticeable that all these activities carried out with artificial intelligence are not sufficient in the field of public administration. In order to solve this insufficiency, it can be stated that public administration and artificial intelligence should be more integrated, However, it is essential to consider the level of integration and the adaptation process of the staff involved (Şen, 2024:235), and preventing adaptation risks is a reality that must not be overlooked. In terms of governance function, artificial intelligence is the core function that influences all stages of risk management and enables other functions of the process. Systemic documentation applications used in the matching and measurement functions defined in the governance function strengthen artificial intelligence risk management efforts. Governance; (Kılıç et al. 2024:22-23); determining legal and regulatory requirements, assessing risk tolerance and plans, defining roles and responsibilities, training organizational personnel and partners, evaluating external feedback, determining policies in terms of integrating decisions, and developing and providing a risk management culture with policies and procedures that examine AI risks and intellectual property infringement risks related to third parties.

The use of artificial intelligence in public governance is not a theoretical promise but a practical and essential tool. This transformation makes artificial intelligence a concrete and powerful reality. Although it has not yet reached its full potential, different trends in the use of artificial intelligence in public administration have begun to be implemented worldwide. Among these, the most notable activities related to the public administration process are the automation of government operations, the modernization of digital infrastructure, the public servant experience, the improvement of the citizen experience, and smart infrastructure management (Vass, 2025:5-6).

Advantages and Disadvantages of Artificial Intelligence in Public Administration

The role of artificial intelligence technologies in governance presents both significant opportunities and critical challenges. When examining the advantages and disadvantages of integrating artificial intelligence into governance, it is considered; that artificial intelligence, if kept under human control, is a technology that will advance society in many ways and will also greatly facilitate work in all processes of organizational activities (UIB, 2017:7). While artificial intelligence increases the productivity and efficiency of organizations, it also enables faster and more informed decisions to be made in organizational services (Doruköz&Uslu, 2023:51). Artificial intelligence, which is frequently heard with the development of technology, is now an indispensable phenomenon in many fields, including public administration. However, artificial intelligence in public administration can have negative aspects as well as positive aspects. However, the use of artificial intelligence application is becoming a necessity rather than a necessity in order to adapt to the changes and developments in this period when digitalization cannot be avoided in public administration (Erol, 2024:23).

Advantages of Artificial Intelligence in Public Administration

Undoubtedly, artificial intelligence technology is one of the most important developments of the 21st century. Although there are some concerns about artificial intelligence technologies due to the conveniences that come with artificial intelligence technologies, there is a positive reaction from the society due to the many opportunities it provides. In this sense, it is known that many actors, primarily governments, technology companies and scientists, have included the use of artificial intelligence in their agenda. It is possible to see the positive effects of artificial intelligence applications in many fields (Güven, 2024:135). Artificial intelligence application in the field of public administration (Erkul, 2022:1-3;Efe&Özdemir, 2021:52;Önder&Saygılı, 2018:647;Erol, 2024:22); ıt is seen as an important tool in improving service quality, ensuring the progress of services, shortening the delivery time of services,

easily identifying the causes of disruptions in services, overcoming obstacles such as foreign language, providing faster options for services about which there are complaints, reducing workload, making quick decisions, minimizing or eliminating damages that may occur due to human errors, and most importantly, changing the way public employees do business. The application of artificial intelligence creates a faster, more efficient, effective and sustainable understanding in public administration.

One of the most significant benefits that artificial intelligence can provide to public institutions and organizations is increased efficiency. This increase in efficiency is achieved through the automation of routine and repetitive tasks to ensure operational efficiency, the reduction of human error to enable more accurate and efficient execution of processes, accelerating processes and reducing workload by minimizing human intervention, directing public employees towards more strategic and value-creating tasks, and accelerating data and information sharing between different public units through integrated artificial intelligence systems (Kılıç et al. 2024:14). In fact, the use of artificial intelligence in public administration is not only an innovative trend but also a smart strategy for many reasons. First, the use of artificial intelligence in public administration increases operational efficiency by automating routine and administrative processes, allowing public employees to focus on more valuable strategic tasks. In addition, artificial intelligence can significantly improve the quality of services provided to citizens by facilitating informed decision-making through the analysis of large amounts of data. Another important point is that artificial intelligence can personalize public services according to the individual needs of citizens, thereby increasing their experience and satisfaction. In summary, the integration of artificial intelligence into public administration creates a more efficient, secure, and citizen-focused environment (Vass, 2025:2), while from a governance perspective, decision-making processes are improved, risk management is strengthened, transparency is increased, and compliance with regulations is facilitated.

Artificial intelligence is used in many public service areas such as health, transportation and security (Erol, 2024:20). In this sense, equipping organizations with smart technology also contributes to the real-time monitoring and reporting of important information (Eggers et al. 2017:11). In short, the application of artificial intelligence technology in public administration has a positive impact especially in terms of efficiency, effectiveness and quality.

Disadvantages of Artificial Intelligence in Public Administration

Although the application of artificial intelligence provides many advantages in public administration, it also brings some concerns (Erol, 2024:23). Data security and legal/criminal liability are the main disadvantages of using artificial intelligence, which is defined as a computing and software technology (Thierer et al. 2017:5) that allows the imitation of human characteristics such as seeing, moving, speaking, hearing, learning, reasoning and perceiving, in the field of public administration. For example, in this period when robotic systems are becoming widespread, citizens who benefit from autonomous vehicle services will share their personal data with the electronic systems of these vehicles, and the vehicles will share this data with many units within the autonomous vehicle components, from smart traffic systems to software companies, from vehicle manufacturers to local governments. Another problem to be solved by governments in the era of artificial intelligence is accessing, storing and processing big data. Protecting data sources with secure systems requires significant cost and technological infrastructure. The risks that may occur in the programming phase of artificial intelligence as applications with independent learning and judgment can be expressed as another disadvantage of artificial intelligence. Another reason for the lack of development of artificial intelligence in public administration is the fear of job loss experienced by public personnel. Some people think of AI applications as an information technology that has the power to change the nature of human influence in the bureaucratic structure because machines, chatbots, robots, intelligent virtual agents supported by AI constitute the new organizational employees of public organizations working together with humans, which creates the appearance that humans are gradually moving away from being the most important factor in public service production (Şahnagil, 2023:187-188). Ethical problems, access difficulties between rural and urban areas, access difficulties for the elderly and the disabled, lack of digital literacy and usage skills, infrastructure and system weaknesses, difficulty in adapting the existing infrastructure to digital transformation, resource deficiencies, financial difficulties, and legal and regulatory difficulties are also seen as problems that artificial intelligence application may encounter in public administration (Erol, 2024:22). Therefore, these problem areas should be taken into consideration in terms of AI implementation. Although many countries already recognize that artificial intelligence has a great impact on efficiency, security, social life and welfare, it is seen that this may bring many concerns in societies (Ulaşan, 2023:302).

Additionally, the use of artificial intelligence technology can also present challenges in terms of governance, such as data privacy, algorithmic bias, and ethical responsibilities. Therefore, continuous education, digital literacy, transparent algorithms, and human oversight are necessary for the effective use of artificial intelligence in public governance. Establishing ethical principles, reducing data privacy risks, and strengthening accountability mechanisms will contribute to the safe and efficient integration of this technology. A recommendation that can be made for effective and efficient artificial intelligence application in governance is that as artificial intelligence becomes an integral part of governance, digital literacy must be developed in an absolute sense (Aladağ, 2024:19-27).

Examples of Artificial Intelligence Applications in Public Administration in the World

Technological developments around the world require governments to formulate policies that will facilitate adaptation to new conditions. In the new age of the Internet and computer technology, the duties and responsibilities of public administration are changing, and public organizations have to make reforms in line with differentiating needs (Şahnagil, 2023:182). Artificial intelligence technology is rapidly transforming many aspects of people's daily lives and this transformation continues rapidly. Public administration is also a part of this change and transformation (Bozdağanoğlu et al. 2024:9). Recently, many countries have been applying artificial intelligence in public administration. One of the main reasons for countries to apply artificial intelligence is to increase administrative efficiency and to enable citizens to benefit from public services more effectively and faster (Erol, 2024:18).

Although artificial intelligence is a concept that has been used in the industrial field since the early 2000s, it can be said that its use in public administration is quite new. Examples of artificial intelligence applications in the field of public administration in the world (Burak, 2023:2;Bozdoğanoğlu et al. 2024:10-11;Gezici, 2023:122-123;Erol, 2024:18); In many countries, police departments serving in the field of security have begun to combine new technologies such as drone-like unmanned vehicles and cameras including facial recognition technologies with artificial intelligence-based systems to carry out crime prevention tasks with much less personnel and budget. While the USA is one of the leading countries in the field of management, the US water and sewerage agency's use of artificial intelligence to manage wastewater networks, the Chicago local government's use of an artificial intelligence system that examines the public transportation system driver model and predicts passenger demands in real time, the prediction of buildings with fire risk with the algorithm developed by the Atlanta Fire Fighting Department, the digitalization of documents with the application of machine vision in the New York social services department, and the accuracy of machine learning-based predictions with the application of solar energy prediction in the energy department. In Hong Kong, the immigration department is using AI to process passports. In Korea, machine learning is being used to identify opportunities across ministries with the goal of catalyzing innovation in the wider economy. Despite being a sparsely populated country, Finland's Ministry of Economic Affairs and Employment has established an AI program and a steering group to guide the program. In Austria, the human resources department uses chatbots and virtual assistants to answer general questions about family, jobseeker and student payments. In Canada, like in Austria, Surrey Municipality uses chatbots and virtual assistants to answer citizens' questions about municipal infrastructure. In Spain, in order to encourage and coordinate the digitalization of the economy and society, the establishment of a state ministry responsible for digitalization and artificial intelligence in 2020 and the use of an artificial intelligence system that predicts the income of small and medium-sized enterprises and self-employed people who decide to pay their taxes on a modular basis rather than determining an exact amount of income in tax offices are noteworthy. In Turkey, the e-government infrastructure, which has been in operation since 2008, the online delivery of many public services and the establishment of the Digital Transformation Office of the Presidency stand out. Finally, Romania's recent announcement of an artificial intelligence assistant named Ion as an honorary advisor to the Romanian Prime Minister, which is an unusual application in the framework of artificial intelligence applications in public administration, is one of the examples of artificial intelligence in the world.

In addition to training programs, the use of artificial intelligence is also seen in the world in making decisions on social aid payments by public officials, detecting fraud, planning new infrastructure projects, responding to questions from citizens, public opinion trends, determining trends and perceptions, making predictions about the outcome of lawsuits, deciding on court hearings, and increasing the level of satisfaction in the field of health services (Efe, 2022:100). Today, many countries in the world are aware that the success to be achieved in artificial intelligence has the effect of changing the balance of power between countries. These countries strive to create and implement artificial intelligence policies that reveal competitive potential (Kanat&Akoğuz, 2024:64). In fact, the changes taking place with the advancement of digitalization increase the interest in artificial intelligence. Especially in the recent period, it is known that artificial intelligence has become increasingly popular and facilitates services. What is important in this sense is that artificial intelligence technology should aim for a sustainable development based on the benefit of society (Burak, 2023:4) and it is a fact that artificial intelligence applications will contribute significantly to a more effective and more efficient management model.

Recommendations for Successful use of Artificial Intelligence in Public Administration

Public administration is related to a very broad field that deals with the structure and functions of the state and government in both theoretical and practical terms. In general, public administration, which is defined as the organization created for the production and provision of public services, is the side of the state that is reflected on the citizens (Çamur&Aydın, 2022:149). Technological changes and developments in the world cause a transformation in the labor market. For this reason, states should develop the dynamics of these transformations and eliminate the incompatibilities in the labor market (Doruköz&Uslu, 2023:55). In this sense, it will be advantageous for organizations to continue the process with new applications such as artificial intelligence, both for the organization and for the personnel working. However, while artificial intelligence applications are included in the process in public organizations, there are some problem areas that all stakeholders should work together and find solutions in order to

achieve success. These problem areas in terms of public administration (Efe&Özdemir, 2021:39-40;Doruköz&Uslu, 2023:55);

-To find answers to the questions of how and to what extent artificial intelligence should be used to improve service delivery

-To be able to include artificial intelligence in the curriculum

-To be able to find solutions to ethical problems related to artificial intelligence

-Create multi-level governance models to guard against prejudices and biases about AI

-Ensure that the benefits of AI are for everyone, not just one segment

-Examine the intergovernmental, regional and cross-sectoral dimensions of artificial intelligence

-Create an appropriate ethical and legal framework for artificial intelligence

In short, implementing training and skills acquisition programs for AI implementation, implementing strong data protection laws, establishing ethical oversight commissions, establishing transparent, accountable and reliable auditing mechanisms, and testing security on a regular basis will solve the existing problem areas and significantly increase the likelihood of success.

The fact that digitalization has become inevitable in a globalizing world makes it imperative to make use of artificial intelligence, so the use of artificial intelligence in public administration is very important in order to adapt to the changing and developing world. If the problems that may arise regarding the application of artificial intelligence are solved and the level of trust and awareness about this issue is increased, this application is an application that can be supported by a large proportion of the society (Erol, 2024:23-24). Public organizations should be prepared and take precautions against possible risks while taking advantage of the advantages brought by artificial intelligence technology. With effective management strategies, detailed legal frameworks, continuous improvement and audit mechanisms, the potential benefits of AI applications in public organizations will be maximized and the positive impact of these technologies on society will increase. In this sense, AI-enabled public administration will significantly improve the quality and continuity of future public services by providing a more inclusive, effective and citizen-based type of administration (Güven, 2024:147).

Conclusion

Although there are many definitions of public administration in line with different perspectives, from a general point of view, the state institution that provides the services required by citizens in many service areas to citizens is called public administration. With the change in the fundamental citizenship rights over time, there have been significant differences in the quality and quantity of services provided by public organizations. Rapid technological change has a great impact on public administration, so the adaptation of public administrations to technology is of great importance. Artificial intelligence is a critical form of technology. In general terms, it is stated that the existence of artificial intelligence will have positive effects such as shortening the duration of public service, reducing workload and solving problems in the service easily. Artificial intelligence is capable of learning, decision-making, policy-making, tax collection and security. In this sense, the impact and reflection of artificial intelligence on public administration is seen and planned in the process of service provision, decision making, public policy making, tax collection and public finance, public security and finally public transportation in public administration.

Today, the effort to evolve from the classical structures of public administration to an organizational form that provides faster, more effective, efficient and quality services based on the digital age is known. In this sense, artificial intelligence is seen as a remedy by many people. Likewise, it is a known fact that the use of artificial intelligence is at the center of the efforts to evolve public administrations in the world. In the digital age, the application of artificial intelligence in public administration contributes to increasing efficiency, minimizing errors, integration with smart devices, saving personnel and financial resources, but artificial intelligence is not without potential dangers in public administration. These include, first and foremost, data security, legal/criminal liability and the increase in automated systems replacing public officials. Although it is stated that artificial intelligence applications in public administration may have disadvantages, it is obvious that these applications have made significant progress in public administration and this development process is still continuing in public administration. Therefore, this study clarifies the applicability, advantages and disadvantages of artificial intelligence in public administration all over the world. The main point that emerges in the study is that the advantages of artificial intelligence technology outweigh its disadvantages by a large margin and that artificial intelligence is already used in many areas of public administration in the world. In this sense, the critical point is to provide services faster, more effectively and efficiently.

Artificial intelligence applications, first seen in the USA, were later integrated into public administration in developed and developing countries such as Hong Kong, Korea, Spain, Finland, Spain, Romania and Turkey. Today, many countries are aware of the success that can be achieved with artificial intelligence. Artificial intelligence is a phenomenon that needs to be considered in public administration today. Public administrations that can benefit positively from artificial intelligence achieve good results. For this reason, all stakeholders should work together on the use of artificial intelligence in public administration, how and to what extent artificial intelligence should be used

in service delivery, developing a ready workforce in this field and finding solutions to ethical problems related to this issue. When examining the history of Turkish public administration in terms of artificial intelligence technology, Turkey has lagged behind other developed countries in this regard. However, there are still significant examples of artificial intelligence in the field of public administration in Turkey. One of the most important examples in the field of Turkish public administration is the e-government application, through which public services are provided online. With this application, public services have been digitized, making it much easier for citizens to access services, and public services have been transferred from a paper-based system to a computer environment. The benefits of AI-based public services in Turkey are particularly evident in increased efficiency, faster and more accurate decision-making, more objective decision-making, citizen satisfaction, cost and resource savings, good governance practices, and international relations. It is also stated that AI-based applications can solve the problem of bureaucratic pressure in Turkish public administration. In short, these are the positive effects that have emerged and are expected to emerge in Turkey in terms of artificial intelligence, but there are also concerns in this regard. For example, there are concerns such as the possibility of increased unemployment, artificial intelligence not being able to think creatively like the human brain, and not being able to feel certain emotions. A recommendation that can be made regarding the applicability of artificial intelligence in Turkey in terms of public administration is that AI-based public services should be implemented within the context of governance principles such as transparency, accountability, controllability, and openness, thereby establishing trust. Furthermore, given the constant evolution of technology, following the AI examples of other countries and adopting positive practices will greatly benefit Turkey in the field of public administration.

In today's information age, or in other words the digital age, artificial intelligence is considered to be the technology of the future. However, there is an important point that should not be forgotten here; human is one of the indispensable elements of public administration and should not be neglected. The existence of a human-supported artificial intelligence will yield much better results in public administration. Yes, artificial intelligence should be integrated into public administration. Artificial intelligence in public administration is a revolution. While integrating artificial intelligence, which significantly facilitates human life, into public administration, positive international examples should be taken into consideration.

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References

Akyel R. (2023). Kamuda Değişim Yönetimi, İç: Kamu Mali Yönetimi Reformunun Dünü Bugünü ve Yarını, Ed: Akyel R. T.C. Sayıştay Başkanlığı

Aladağ E. T. (2024). Kurumsal Yönetişim ve Yapay Zeka: Potansiyel Fırsatlar ve Zorluklar, Denetişim, Yıl:15, Ek Sayı, 18-32, https://doi.org/10.58348/denetişim.1541327

Albasoft (2022). Güçlü Yapay Zekaya Karşı Zayıf Yapay Zeka, 26.04.2022,

https://albasoft.com.tr/gucluyapayzekakayakarsizayifyapayzeka/, Erişim Tarihi:23.07.2024

Aydın M. S. (2024). Kamu Hizmetlerinin Sunumunda Yapay Zeka Kullanımı, Uluslararası Sosyal Siyasal ve Mali Araştırmalar Dergisi, 4(2), 171-186

Aydilek E. (2023). Yapay Zeka Kamu Yönetimini Nasıl Dönüştürecek?, 13.09.2023, https://daktilo1984.com/yazilar/yapayzekakamuyonetimininasildonusturecek, Erişim Tarihi:12.07.2024

Berkün S. (2017). Kamu Açısından Yönetim, Hak İş Uluslararası Emek ve Toplum Dergisi, 6(16), 638-664

Boyalı H. (2025). Yeni Kamu Yönetimi Perspektifiyle Dijitalleşmenin Son Evresi: Yapay Zeka, Kamu Yönetimi ve Politikaları Dergisi, 6(2), 207-227

Bozdoğanoglu B. & Haspolat İ. & Yücel A. (2024). Kamu İdarelerinde Yapay Zekâ Kullanımının Ülke Uygulamaları ve Temel Kamusal İlkeler Çerçevesinde Değerlendirilmesi, Hacı Bayram Veli Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 6(1), 1–32, doi:10.26745/ahbvuibfd.1424290

Boztepe M. (2018). Yeni Kamu Yönetimi ve Geleneksel Kamu Personel Rejimi Üzerine Etkileri, Kocatepe Üniversitesi Sosyal Bilimler Dergisi, 20(3), 191–210, doi:10.32709/akusosbil.425043

Burak B. (2023). Yapay Zekânın Siyaset ve Yönetime Yansımaları, Perspektif, 26.12.2023, https://www.perspektif.online/yapayzekaninsiyasetveyonetimeyansimalari, Erişim Tarihi:12.08.2024

CBDDO (T.C. Cumhurbaşkanlığı Dijital Dönüşüm Ofisi) (2024). Yapay Zeka, https://cbddo.gov.tr/sss/yapayzeka, Erişim Tarihi:24.07.2024

Cebesoy T. & Gözen M. (1996). Bilgi Toplumunda Yapay Zekanin Yeri ve Özellikleri, Gazi Üniversitesi Endüstriyel Sanatlar Eğitim Fakültesi Dergisi, Sayı:4, 93-100

Certo C. S. (2003). Modern Management, Prentice Hall

Coşkun F. & Gülleroğlu H. D. (2021). Yapay Zekanın Tarih İçindeki Gelişimi ve Eğitimde Kullanılması, Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 54(3), 947–966, doi:10.30964/auebfd.916220

Clemen R. T. & Reilly T. (2013). Making Hard Decisions with Decision Tools, Cengage Learning, 3rd Edition

Corr P. & Plagnol A. (2019). Behavioral Economics: The Basics, Taylor & Francis Group, Routledge

Crevier D. (1993). AI: The Tumultuous Search for Artificial Intelligence, Basic Books

Çamur Ö. (2020). Kamu Yönetiminde Kamu Yararının Gerçekleştirilmesinde Adaletin Önemi, Manas Sosyal Araştırmalar Dergisi, 9(1), 605–614

Çamur Ö. & Aydın A. (2022). Yeni Kamu Yönetimi Anlayışının Etik Temelleri ve Kamu Yönetiminde Etik Yönetimin Gelişmesi Üzerindeki Etkisi, Denetişim Dergisi, 13(25), 148-159

Daft R. (2010). Organization Theory and Design, Cengage Learning, 10th Edition, USA.

Değirmenci D. S. (2024). Yapay Zeka ve Kamu Hizmetleri Çalıştayı Etkinlik Raporu, 23.11.2024Çevrimiçi, Publicus Dergisi, 2024(2), 251-271

Dereli T. (2020). Yapay Zeka ve İnsanlık, İç: Bilişim Teknolojileri ve İletişim: Birey ve Toplum Güvenliği, Ed: Şeker M. & Bulduklu Y. & Korkut C. & Doğrul M. Türkiye Bilimler Akademisi, Berk Grup Matbaacılık, 1. Baskı, 114-130

Doruköz K. D. & Uslu B. (2023). Yapay Zekânın İş Hayatındaki Yeri: Avantajlar, Dezavantajlar ve Politikalar, Bandırma Onyedi Eylül Üniversitesi Sosyal Bilimler Araştırmaları Dergisi, 6(CEEİK Özel Sayı), 45–62, doi:10.38120/banusad.1376452

Dye T. R. (2013). Understanding Public Policy, Pearson Education

Efe A. (2022). Yapay Zekâ Ortamındaki Dijital Kamu Yönetiminin Yol Haritası, Kamu Yönetimi ve Teknoloji Dergisi, 4(1), 99-130

Efe A. & Özdemir G. (2021). Yapay Zekâ Ortamında Kamu Yönetiminin Geleceği Üzerinde Bir Değerlendirme, Kamu Yönetimi ve Teknoloji Dergisi, 3(1), 34-60

Eggers W. & Schatsky D. & Viechnicki P. (2017). AIAugmented Government Using Cognitive Technologies to Redesign Public Sectorwork, Deloitte University Press, https://www2.deloitte.com/content/dam/insights/us/articles/3832_AIaugmentedgovernment/DUP_AIaugmentedgovernment.pdf, Erişim Tarihi:21.09.2024

Ekinci E. & Karakoyunlu İ. (2023). Verimlilik ve Yapay Zekâ Arasındaki İlişki: Herbert A.Simon'un Yönetim Düşüncesi Üzerinden Bir İnceleme, Türk İdare Dergisi, Yıl:94, Sayı:495, Aralık, 64-88

Erbaş M. S. (2023). Türk Kamu Yönetiminde Stratejik Yönetim ve Dijital Dönüşüm Bağlamında Yapay Zekânın Kullanımı, Türk İdare Dergisi, 95(496), Haziran, 185-215

Erdoğan O. (2024). Kamu Kurumlarının Karar Alma Süreçlerinde Yapay Zeka Tabanlı Çözüm Stratejileri: Türkiye İnsan Hakları ve Eşitlik Kurumu'nun Kararlarının ChatGPT İle Analizi, Yasama Dergisi, (50), Temmuz-Aralık, 75-104

Erkul R. (2022). Yapay Zeka ve Kamu Yönetimi Etkileşimi, AI (Türkiye'nin Yapay Zeka Platformu), 15.08.2022, https://ai.org.tr/2022/08/15/yapayzekavekamuetkilesimi, Erişim Tarihi:22.06.2024

Erol V. (2024). Yapay Zekânın Kamu Yönetimine Etkisi, Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, (82), 11-25, doi:10.51290/dpusbe.1476745

Eryılmaz B. (2019). Temel Kavramlar, İç: Kamu Yönetimi, Ed: Sözen S. Açıköğretim Fakültesi Yayını: 2296, 3-28

Eşki H. (2009). Kamu Yönetiminde Değişim ve Yeni Yönetim Modelleri, Sosyal Ekonomik Araştırmalar Dergisi, 9(17), 491–500

Fidan Y. (2011). Yönetimden Yönetişime: Kavramsal Bir Bakış, Yalova Sosyal Bilimler Dergisi, Cilt:1, Sayı:1, 5-10

Genesereth M. R. & Nilsson N. J. (1988). Logical Foundations of Artificial Intelligence, Morgan Kaufmann Publishers

Gezici H. S. (2023). Kamu Yönetiminde Yapay Zekâ: Avrupa Birliği, Uluslararası Akademik Birikim Dergisi, 6(2), 111-128

Gözübüyük B. (2021). Yapay Zekanin Meydana Getirdiği Fikri Ürünlere İlişkin 5846 Sayılı Fikir ve Sanat Eserleri Kanunundakı Sorunlar ve Çözüm Önerileri, KHM, Cilt:1, Sayı:1, 54-81

Gündoğmuş B. (2021). Kamu Yönetimi Kavramsal Çerçevesi ve İnceleme Yaklaşımları, İç: Kamu Yönetiminde Değişim Olgusu Global Trendler ve Yeni Paradigmalar, Ed: Akıncı B. Nobel Bilim Eserler, 1. Basım, Mayıs, 1-21

Güner H. (2014). Türkiye'de Kamu Yönetimi ve Kamu Yönetiminin Denetimi, Denetişim, Kamu İç Denetçileri Derneği/KIDDER, 2014(14), 65-72

Güven A. (2024). Yapay Zeka Uygulamalarının Kamu Yönetimindeki Rolü ve Önemi, Enderun Dergisi, 8(2), 127-151

Gtech (2021). Yapay Zeka Nedir, Yapay Zeka Hakkında Bilmeniz Gerekenler, 09.09.2021, https://www.gtech.com.tr/yapayzekanediryapayzekahakkindabilmenizgerekenler, Erişim Tarihi:03.04.2025

Hoş S. (2023). Yapay Zeka Terimleri Sözlüğü, ÇözümPark, 11.10.2023, https://www.cozumpark.com/yapayzekaterimlerisozlugu, Erişim Tarihi:12.07.2024

Howard J. (2019). Artificial Intelligence Implications For The Future Of Work. American Journal of Industrial Medicine, 62(11), 917-926

Huang R. & Sturm, B. (2021). Reframing 'Aura': Authenticity in the Application of AI to Irish Traditional Music, 2nd Conference on AI Music Creativity 2021. AIMC

İnce H. & İmamoğlu S. E. & İmamoğlu S. Z. (2021). Yapay Zeka Uygulamalarının Karar Verme Üzerine Etkileri: Kavramsal Bir Çalışma, International Review of Economics and Management, 9(1), 50-63, https://doi.org/10.18825/iremjournal.866432

Innova (2020). Dünden Bugüne Yapay Zeka, 24.09.2020, https://www.innova.com.tr/tr/blog/dundenbuguneyapayzeka, Erişim Tarihi:23.07.2024

Innova (2023). Yönetişim 2.0 Kamuda Yapay Zeka ve Veri Dönüşümü, 11.08.2023, https://www.innova.com.tr/blog/yonetisim20kamudayapayzekaveveridonusumu, Erişim Tarihi:05.04.2024

ITU (İstanbul Teknik Üniversitesi) (2024). https://web.itu.edu.tr/~sonmez/lisans/ai/yapay_zeka_icerik1_1.6.pdf, Erişim Tarihi:12.08.2024

İzci, F. & Sarıtürk, M. (2017). Değişen Kamu Yönetimi Anlayışı: İyi Yönetişim ve Temel Bileşeni Olarak Hesap Verebilirlik, International Journal of Academic Value Studies, Vol:3, Issue:13, 178-198, doi:10.23929/javs.373

Kanat S. & Akoğuz N. O. (2024). Uluslararası İlişkiler ve Yapay Zekâ: Uluslararası Güvenlik Açısından Bir Değerlendirme, Sosyal ve Beşeri Bilimler Araştırmaları Dergisi, 25(54), 60-73

Karabulut B. (2021). Yapay Zeka Bağlamında Yaratıcılık ve Görsel Tasarımın Geleceği, Elektronik Sosyal Bilimler Dergisi, 20(79), 1516-1539, doi:https://doi.org/10.17755/esosder.844536

Karaman C. K. (2024). Kamu Politikası Yapım Sürecinde Yapay Zekâ, Yüksek Lisans Tezi, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Siyaset Bilimi ve Kamu Yönetimi Anabilim Dalı Kamu Yönetimi Bilim Dalı

Kılıç Ö. & Çakır M. U. & Yekeler A. T. & Güneş A. et. al. (Kamuda Yapay Zekâ Uygulamaları Çalışma Grubu) (2024). Kamuda Yapay Zeka Uygulamaları, Türkiye Bilişim Derneği, Kasım

Kocaman O. (2024). Yapay Zekâ Uygulamalarının Kamu Yönetiminde Karar Almaya Etkisi, Yasama Dergisi, (49), Ocak-Haziran, 153-192

Kopar E. (2023). Yapay Zekanın Tarihçesi ve Gelişimi, 20.06.2023, https://www.brandingturkiye.com/yapayzekanintarihcesivegelisimi, Erişim Tarihi:02.06.2024

Kutluk E. (2022). Siyaset, Kamu Yönetimi ve Uluslararası İlişkiler Bağlamında Yapay Zekâ Tartışmaları, İç: Siyaset, Kamu Yönetimi ve Uluslararası İlişkiler Bağlamında Yapay Zekâ Tartışmaları, Ed: Korkusuz M. H. & Kutluk E. 9. Bölüm, Ekin Basım Yayın Dağıtım, 206-238

Kuşseven A. (2022). Kamu Politikalarında Dürtme Yaklaşımı ve Yapay Zekânın Kullanımı, Kaytek Dergisi, 4(1), 59-77

Küçükali R. & Coşkun H. C. (2021). Eğitimde Dijitalleşme ve Yapay Zekânın Okul Yöneticiliğindeki Yeri, Uluslararası Liderlik Çalışmaları Dergisi: Kuram ve Uygulama, 4(2), 124-135, doi:10.52848/ijls.852119

Laurance E. & Lynn J. (2001). The Myth of The Bureaucratic Paradigm: What Traditional Public Administration Really Stood For, Public Administration Review, 61(2), 144-160

Macunluoğlu Ö. U. (2010). Kamu Mali Yönetiminin Yeniden Yapılandırılmasında Gelir Denetiminin Değerlendirilmesi, Yüksek Lisans Tezi, Uludağ Üniversitesi, Sosyal Bilimler Enstitüsü, Maliye Anabilim Dalı, Maliye Bilim Dalı

Metaveri (2019). Merkezi Yönetim Harcamalarının Fonksiyonel Sınıflandırılması Tablosu, T.C. Maliye Bakanlığı Muhasebat Genel Müdürlüğü,https://ms.hmb.gov.tr/uploads/sites/3/2019/04/METAVER%C4%B0Harcamalar%C4%B1nFonksiyonelS%C4%B1n%C4%B1fland%C4%B1rmas%C4%B110.pdf, Erişim Tarihi:25.06.2025

Moor J. (2006). The Dartmouth College Artificial Intelligence Conference: The Next Fifty Years. AI Magazine, 27(4), 87-91, doi:https://doi.org/10.1609/aimag.v27i4.1911

Okçu M. (2021). Bildiğimiz Kamu Yönetiminin Sonu: Kamu Yönetiminde Yapay Zeka ve Dijital Dönüşüm, İç: 21. Yüzyılda Türk Kamu Yönetiminin Değişimi, Ed: Öcal A. & Hayta Y. Detay Yayıncılık, 215-256

Okçu M. & Usta S. & Ceyhan H. (2020). Değişen Kamu Yönetimi Anlayışı ve Bürokrasi Kültürü, KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi (KMUSEKAD), 22(39), 291-311

Ozan M. S. & Yolcu F. S. (2021). Geleneksel ve Yeni Kamu Yönetimi: Karşılaştırmalı Bir İnceleme, 4th Internatıonal European Conference on Interdisciplinary Scientific Research, 08-09.August.2021, 578-584

Öksüz B. (2014). Yönetişim Sürecinde Kurumsal İletişimin Rolü ve Önemi, Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi, Sayı:4, Cilt:2, Eylül, 181-210, https://doi.org/10.19145/guifd.51412

Önder M. & Saygılı H. (2018). Yapay Zekâ ve Kamu Yönetimine Yansımaları, Türk İdare Dergisi, 90(487), Aralık, 629-670

Öz E. (2023). Yapay Zekanın Kara Kutusu Çözülmezse Tehlikeli Olur Mu?, 13.01.2023, INDEPENDENT, https://www.indyturk.com/node/598676/bi%CC%87li%CC%87m/yapayzekan%C4%B1nkarakutusu%C3%A7%C3%B6z%C3%BClmezsetehlikeliolurmu, Erişim Tarihi:06.10.2025

Özdemir Ö. (2010). Kamu Personelinin Verimlilik Yaklaşımı, Milli Prodüktivite Merkezi Yayınları No:715

Özer M. A. & Kartal M. (2021). Kamu Tercihi ve Yönetimde Karar Verme: Teorik Bir Değerlendirme, Hak İş Uluslararası Emek ve Toplum Dergisi, 10(26), doi:https://doi.org/10.31199/hakisderg.793872

Özer U. (2017). Kamu Yönetimi, Hitit Üniversitesi, 08.05.2017, https://web.hitit.edu.tr/dosyalar/duyurular/ugurozer@hititedutr080520179U6F9P9R.pdf, 13-46, Erişim Tarihi:21.01.2025

Öztekin A. (2015). Devletin Asli ve Sürekli Görevleri (Temel Kamu Hizmetleri) ve Özellikleri, Akdeniz İİBF Dergisi 15(30), 10-19

Öztürk K. & Şahin, M. E. (2018). Yapay Sinir Ağları ve Yapay Zekaya Genel Bir Bakış, Takvimi Vekayi, 6(2): 25-36

Pirim H. (2006). Yapay Zeka, Yaşar Üniversitesi E Dergisi, 1(1), 81-93, doi:10.19168/jyu.72783

Polat G. E. & Akçakaya M. (2022). Kamu Yönetiminde Verimlilik: Kavramsal Bir İnceleme, Ekonomi İşletme Siyaset ve Uluslararası İlişkiler Dergisi (JEBPIR), 8(2), 250-268

Salvagno M. & Taccone F. S. & Gerli G. A. (2023). Can Artificial İntelligence Help for Scientific Writing?, Critical Care, 27(1):75, doi:10.1186/s13054023043802

Scherer M. U. (2016). Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies and Strategies, 29(2), 354-400

Şahnagil S. (2023). Akıllı Devlete Geçiş Sürecinde Yapay Zekânın Kamu Yönetimine Entegrasyonu, İç: İktisadi ve İdari Bilimler Alanında Teori Uygulama ve Güncel Tartışmalar, Ed: Dündar Ö. Gazi Kitabevi, 175-199

Şen A. T. (2024). Kamu Çalışanlarının Yapay Zeka Kaygı Düzeylerinin Belirlenmesi: Kastamonu Örneği, Ömer Halisdemir Üniversitesi İİBF Dergisi, 17(2), 232–246, doi:https://doi.org/10.25287/ohuiibf.1384435

Şen Y. F. & Yurtoğlu D. (2020). Teknoloji ve Güvenlik İlişkisi Bağlamında Yapay Zekânın İstihbarat Analizindeki Önemi, Güvenlik Çalışmaları Dergisi, 22(1), 24–48

Tamer H. Y. & Övgün B. (2023). Dijitalleşme Süreci Çerçevesinde Kamuda Stratejik Yönetim, ODTÜ Gelişme Dergisi, 50(2), 509-538 https://doi.org/10.60165/metusd.v50i2.1312

Tanrıverdi A. (2021). Yapay Zekânın Kamu Hizmetinin Sunumuna Etkileri, Adalet Dergisi, (66), 293-314

Thierer A. D. & O'Sullivan A. C. & Russell R. (2017). Artificial Intelligence and Public Policy, Mercatus Research Paper, Mercatus Center George Mason University, doi:http://dx.doi.org/10.2139/ssrn.3021135, 56 pages

Turing M. A. (1950). Computing Machinery and Intelligence, Mind, 59(236), 433-460

UİB (Uludağ İhracatçı Birlikleri) (2017). Yapay Zekâ ve Yeni Teknolojiler. Uludağ İhracatçı Birlikleri Genel Sekreterliği Ar&Ge Şubesi Raporu, Haziran, 113, http://www.uib.org.tr/tr/kbfile/yapayzekaveyeniteknolojiler, Erişim Tarihi:12.05.2025

Ulaşan F. (2023). Koronavirüsle Mücadelede Yapay Zekanın Yerinin Kamu Yönetimi Temelinde Değerlendirilmesi, İç: 3International Mediterranean Congress, Ed: Arslan B. & Erdoğan M. Iksad Global, 109123

Uzun M. M. & Yıldız M. & Önder M. (2022). Big Questions of Artificial Intelligence (AI) in Public Administration and Policy, Siyasal Journal of Political Sciences, 31(2), 423–442

Uzun A. K. (2025A). Yönetişim İlkeleri ile Yapay Zekâ Etkileşimi, 29.09.2025, https://www.hurses.com.tr/yonetisimilkeleriileyapayzekaetkilesimi, Erişim Tarihi:03.10.2025

Uzun A. K. (2025B). Yönetişim İlkeleri İle Etkileşimi İçin Yapay Zekâ Ne Düşünüyor?, 01.10.2025 https://www.turcomoney.com/yonetisimilkeleriileetkilesimiicinyapayzekanedusunuyor.html, Erişim Tarihi:03.10.2025

Vass (2025). Akıllı Yönetişim: Kamu Yönetiminde Yapay Zeka, https://vasscompany.com/en/insights/blogsarticles/smartgovernance/, Erişim Tarihi:03.10.2025

Yıldız M. S. & Alper A. (2023). Potential functions of artificial intelligence chatbot ChatGPT in health management: Scoping review, Türk Hijyen ve Deneysel Biyoloji Dergisi, 80(4): 523-530, doi:10.5505/TurkHijyen.2023.78370

Yılmaz M. & Talas, M. (2010). Bilgi Merkezinde Karar Verme Süreci, Zeitschrift für die Welt der Türken Journal of World of Turks, 2(1), 197-216

Warren A. (2018). Globalization, Security and Drones, İç: Global Encyclopedia of Public Administration, Public Policy and Governance, Ed: Farazmand A. Springer International Publishing AG, 2732-2740

Wirtz, B. & Weyerer, J. & Geyer, C. (2018). Artificial Intelligence and the Public SectorApplications and Challenges, International Journal of Public Administration, 42(7), 596-615

Wolfgang E. (2016). Grundkurs Künstliche Intelligenz: Eine praxisorientierte Einführ, Springer Vieweg; Auflage:4

Yaldız F. (2024). Kamuda Yapay Zeka ve Makine Öğrenmesinin Rolü Üzerine, https://tr.linkedin.com/pulse/kamudayapayzekavemakine%C3%B6%C4%9Frenmesininrol%C3%BC%C3%BCzerinefatihyaldiz, Erişim Tarihi:19.08.2024

Zia Y. A. & Khan M. (2014). A Comparative Review of Traditional and New Public Administration and Critique of New Public Management. Dialogue, 9(4), 428-442

Kamu Yönetiminin Temel İlkeleri ve Yeniden Yapılandırılması Hakkında Kanun/5227 (2004). 15.7.2004, https://www5.tbmm.gov.tr/kanunlar/k5227.html, Erişim Tarihi:21.05.2024