

IMPROVING THE QUALITY OF SERVICE TO PASSENGERS BY USING ARTIFICIAL INTELLIGENCE AT AIRPORTS

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Abstract. The aviation sector may benefit the most from Artificial Intelligence (AI), which has the potential to alter the business. As a result of AI and aviation breakthroughs, smart airports have evolved. The purpose of this research is to look into the significance of applying Uzbekistan international airports, like the new capital airport.

Keywords: Automated services, Smart airports, Intelligence operating system.

INTRODUCTION

Despite the importance of the human element as a cornerstone in the field of service provision in general, the benefit of modern technology has become an irreplaceable requirement, particularly with all service fields relying on technology and its applications in carrying out their work. Many information technology companies around the world have begun to provide many technological applications based on the idea of AI, that is, the concept of the machine doing logical thinking, data analysis, and problem-solving in a way that simulates the human mind, which can be used in a way (Dožić, 2019) strong in analyzing a large amount of data and producing a large amount of information and results that benefit the tourism industry and its development, while others believe that this will have a negative impact on tourist employment in the future (Dewi, 2020).

MATERIALS AND METHODS

Mobility and its transportation pillars (air, inland and maritime) are at the heart of our socio-economic fabric, support social connections and enable access to goods and services such as trade, employment, health care and education. Mobility by air, road and water in today's world is all about efficiency, speed, interconnectivity and accessibility for all. This, however, raises the issue of sustainability. According to the United Nations, cities will house two-thirds of the world's population by 2050 (Efthymiou et al., 2022).

Furthermore, innovation in technology and approaches (for example, by redefining travel efficiencies) is critical to redefining mobility and cutting-edge technology, such as self-driving cars and ultra-light materials, opens up possibilities

for transforming the mobility system by enabling new business models and mobility services. Unmanned aircraft innovations, artificial intelligence, biometrics, robotics, blockchain, alternative fuels and electric aircraft are just a few examples. As a result, aviation is uniquely positioned to support the innovation discourse and its potential impacts on new mobility (Dalkilic, 2017).

RESULTS AND DISCUSSION

being strained as the number of flights and passengers increases. This must be done while maintaining punctuality, performance, safety, travel, tourism and hospitality companies have used robots; AI and service automation in a cost-benefit analysis using an Airport Operations Centre (APOC) to manage integrated airport operations is a critical step in optimizing the use of all airport resources and facilities, reducing aircraft turnaround times and flight delays. Furthermore, ensuring airport capacity reliability during peak times and in all weather conditions. Every aspect of an airport's operational life significantly impacts the airport experience of any passenger (Naumov, 2019). Long delays, insufficient security clearances and general chaos could result from failing airport operations. It will also jeopardize the safety of planes, passengers and employees. Airport operations are typically classified into four types (Lukanova & Ilieva, 2019). The use of artificial intelligence (AI) and machine learning (ML) technology is projected to improve air traffic management and predictive maintenance in the near future adoption of AI for observation tasks such as time series analysis, natural language processing and computer vision. Furthermore, airlines bear hefty expenditures as a result of delays and cancellations, including maintenance costs and compensation for passengers detained in airports.



Source: Journal of Air Transport Management (2021).

Figure 2: Four Airport's Operations Categories.

Predictive analytics applied to fleet technical assistance is a potential solution, with unscheduled maintenance accounting for approximately 30% of overall delay time (Lui et al., 2021). Using AI techniques in concert with a physical understanding of the environment can considerably increase forecast quality for several types of high-impact weather, National Oceanic and Atmospheric Administration (NOAA) researchers discovered. AI is largely acknowledged as making an important contribution to the fast growing field of computational sustainability. This will aid in forecasting storm duration, severe hail or wind, precipitation categorization, aviation turbulence forecasting and renewable energy forecasting (Fuad et al., 2020).

- Therefore, propose 1 that the use of AI will increase the level of safety and security by predicting what will happen.

Furthermore, flight performance and crisis management one of the most significant characteristics for aerospace Original Equipment Manufacturer (OEMs) is fuel efficiency, which may be increased with the use of artificial intelligence. Any little increase in fuel efficiency can have a substantial influence on aircraft emissions, which can be accomplished by creating lightweight aircraft components. AI supports pilots during flights by assessing vital data such as the fuel system, system state, weather conditions and other major parameters that may be reviewed in real-time to optimize a flight path (Karp, 2020). The automation of the airline cockpit will help to liberate the pilot's attention from difficult control chores.

CONCLUSION

There are significant limitations to the current analysis. First, the study focuses on the need of using AI technology in airport operations; propose raising awareness about the significance of using AI. The study also examines a restricted selection of AI applications. As a result, advocate adding more new applications for future research.

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