International Journal of Maritime Policy
Vol. 4, Issue 16, Winter 2024, pp.141-174
DOI: https://doi.org/ 10.22034/irlsmp.2025.316687.1112
ISSN: 2717-4255

An Overview of Artificial Intelligence and Return on Investment in the Marine Tourism Industry

Atena Basirat[1], Davood Feiz[2], Ehsan Sangsari[3]

Received:11 January 2024 Accepted: 06 October 2024 Published:26 December 2024

Abstract

Background and Theoretical Foundations: Throughout history, humanity has always been involved in numerous crises, including war and bloodshed, and their undesirable consequences and effects. Establishing peace and resolving conflicts has always been of interest to scholars, and accordingly, two main views have been put forward in this regard under the headings of "the originality of peace" or "just war". Meanwhile, sea bandits or piracy, which have a very old history and are as old as the history of human domination of the sea, have become a serious threat to the security of international trade in recent years, since 2008, due to reasons such as changing the behavioral pattern of pirates who often take hostages and extort money. The crime of piracy is one of the first international crimes with global jurisdiction, and has always been the subject of discussion among scholars of various legal systems. One of the important issues in this regard is how to establish peace or a just war with this phenomenon.

Methodology: In this research, which uses a descriptive and analytical method, piracy was studied in a comparative manner from the perspective of just war theory in Islamic jurisprudence and international law. The data collection tools in this qualitative research are the use of library resources and texts, and electronic journals, with a common approach in identifying and critiquing the research conducted.

[1] Master of Business Administration- Marketing, Faculty of Management and Administrative Sciences, Semnan University, Semnan, Iran

[2]Professor, Department of Business Administration, Faculty of Economics, Management and Administrative Sciences, Semnan University, Semnan, Iran,(Corresponding Author),Email: feiz1353@semnan.ac.ir

[3]Master of Business Administration- Entrepreneurship, Faculty of Management and Administrative Sciences, Semnan Islamic Azad University, Mahdishahr . Iran

Findings: It shows that the Islamic legal system and international law have presented mostly similar and sometimes different views in this regard, but ultimately, both legal systems support the observance of ethical and humanitarian principles.
Conclusion: The results show that today, the issue of war is an important issue and challenge that can only be accepted when it is accepted as a just challenge in the international arena. Therefore, considering the principles of international law and the actions of pirates, in many cases there are many similarities with the term war in Islamic jurisprudence, and their behavior and actions, which often lead to the deprivation of sea security, can be considered as war, but observing the principles of just war is both essential and of fundamental importance in the Islamic legal system.

Keywords: Artificial Intelligence, Return on Investment, Maritime Tourism Industry, Pearson Correlation, Regression Analysis.

1. Introduction and background:

Recent findings indicate that socio-technical and political-economic transformations, coupled with demographic changes, have intensified significantly in the aftermath of the COVID-19 pandemic. In light of these challenging conditions, contemporary enterprises must enhance their adaptive capabilities to effectively navigate market fluctuations and evolving consumer behaviors. The development of adaptive capabilities facilitates rapid organizational transformation and serves as a foundation for both organizational change and digital innovation (Edoardo et al., 2020). However, there remains a deficiency in strategic frameworks that can keep pace with the accelerating advancements in modern technology (Heidi, 2020). Established companies are increasingly leveraging cutting-edge technologies to refine and adjust their operations, with artificial intelligence emerging as a prominent example of this next generation of analytics (Diana, 2016).

The concept of "artificial intelligence" encompasses a diverse array of analytical techniques, applications, and methodologies that utilize logical frameworks to replicate human-like behaviors, decision-making processes,

and cognitive functions such as learning and problem-solving (Kane et al., 2016). In the context of digital transformation, AI technologies present numerous opportunities for businesses to enhance their operations across various industries (Chen, 2022). For instance, AI-driven decision-making can be applied to areas such as loan approvals, credit assessments, and sales predictions (Cooper, 2012). Furthermore, AI has the potential to deliver substantial advantages by automating tasks that were previously performed manually (Premira et al., 2022) and facilitating improved workflows through effective collaboration between humans and AI systems (Alkoseks, 2022).

According to a recent Gartner report (2022), senior executives see analytics and AI as critical game changers that will enable businesses to survive the current crisis. Despite the excitement surrounding the promise of AI, there is currently considerable scholarly debate about the barriers to adoption and the skills and capabilities required for AI to deliver strategic benefits (Gerke, 2020). AI can bring significant benefits to businesses, but in order to implement AI and create a high impact that does not negate all costs and efforts, organizations must define a compelling shared vision when a fundamental change is necessary (Lisa, 2015). In addition, businesses must leverage several distinct technologies, such as AI, to drive adaptive transformation and sense and response capabilities that drive innovation, enhance customer service and experience, and drive improved performance (Kiming, 2015).

The Maritime Tourism industry has witnessed significant transformations with the advent of artificial intelligence (AI) technologies. AI is increasingly integrated in optimizing various aspects of the Maritime Tourism sector, including enhancing customer experiences, streamlining operations, and ultimately impacting return on investment (ROI) for businesses in the industry. This introduction explores the multifaceted role of AI in Maritime Tourism and its implications for ROI, highlighting opportunities and challenges.

One of the key roles of AI in the Maritime Tourism sector is its ability to personalize and enhance customer experiences. Through data analysis and predictive modeling, AI systems can provide tailored recommendations, anticipate customer needs, and provide real-time assistance, thereby enriching the overall travel experience. Whether it's suggesting personalized travel itineraries, offering language translation services, or offering virtual concierge support, AI increases customer satisfaction and loyalty, ultimately impacting ROI by fostering repeat business and positive word-of-mouth referrals.

AI not only enhances customer experiences but also significantly contributes to the operational efficiency and cost reduction of cruise enterprises. Solutions driven by AI can automate routine tasks, optimize the allocation of resources, and forecast demand trends, resulting in more efficient processes and lower operational expenses. By leveraging AI for functions such as inventory management, dynamic pricing models, and predictive maintenance, cruise companies can enhance their profitability and achieve improved long-term returns on investment. However, despite the potential advantages of AI in the cruise tourism sector, various challenges and considerations must be addressed. Issues related to data privacy, the risk of security breaches, and the ethical ramifications of AI algorithms necessitate thorough examination.

In addition, the initial investment required to implement AI technologies may pose financial challenges for some businesses, especially smaller companies. Balancing the potential ROI with the initial costs and ensuring the ethical and responsible use of AI are important considerations for Maritime Tourism stakeholders who aim to harness the full potential of AI while maintaining sustainable and ethical practices.

The first research on AI and ROI was conducted in California in ۱۹۹۴. This research was called Applications of AI in Finance by Dr. Marvin McKenzie and Dr. McDruth at the Gorton College of Business in California. In a study by Dermavansiah and Sismati (۲۰۲۳), ROI as a financial and non-financial indicator through application in social media

marketing tools were used to develop digital marketing in their industry. This method is based on applied research and a constructivist perspective. Jonathan. Jensen (۲۰۲۳) in a study on the Holy Grail of Marketing related to sponsorship applied a model of ROI analysis on more than ۵۸۰۰ sponsorships. Sheik (۲۰۲۳) in a study on the impact of AI in marketing used a qualitative study that included semi-structured interviews with marketing professionals from several Indian companies. This study also contributes to strategic marketing research by identifying research gaps that bridge the performance and strategic marketing research of AI in a systematic and rigorous manner. In a study examining AI for commercial companies, they concluded that AI is beneficial to the company in terms of profitability, its impact on price and quantity, as well as the consumer, is more nuanced and strongly dependent on environmental characteristics.

Joshua S. Ganz (2022) references a study by Shazuo (2021) that investigated the potential of artificial intelligence (AI) in enhancing sustainable practices within Maritime Tourism. The authors proposed that AI could play a significant role in minimizing waste, conserving resources, and improving the overall sustainability of Maritime Tourism operations. Nonetheless, they acknowledged that further research is essential to tackle the challenges and limitations associated with the integration of AI in this sector. Additionally, Shang et al. (2021) conducted a study that explored the effects of AI on hotel investments and the corresponding return on investment (ROI).

Based on the results of a study in China and the analysis of data from 125 hotels across the country, a correlation has been shown between the adoption of artificial intelligence (AI) and hotel investment and return on investment (ROI). In this, hotels are advocating for investing in AI technologies to improve their competitive advantage and financial results. In a separate study, Nwachukwu et al. (2023) examined the effects of AI marketing in Nigeria and found that such practices effectively increase market awareness and management in the Nigerian context. They

emphasized the importance of investing in infrastructure, leveraging existing data, and developing AI-based conversational bots. Furthermore, Yuan Yang and Xuejiao Wang (2021) examined strategies for hotels to design virtual reality (VR) initiatives that respond to the preferences of their target demographics while simultaneously enhancing their brand image.

In a study examining the revitalization of Asian American and Pacific Islander entrepreneurship through AI-based social media marketing techniques, three beneficial techniques emerged from the skillful integration of artificial intelligence (AI) into entrepreneurs' social media marketing strategies. These techniques include double coding, gamification approaches, and cultural sensitivity tools. Vanya Shrivastava (۲۰۲۳). Bonti et al. (۲۰۲۲) studied how employee practices change when retailers invest in AI. Many retailers are investing in artificial intelligence (AI) to improve operational efficiency or enhance the customer experience. Joseph Bonaparte (۲۰۲۳) in a study titled Artificial Intelligence in Finance concluded that AI revenue will exceed ۲,۷$trillion in the next ۱۰years, where the AI services technology stack will comprise %۷۵of the market share, with %۵۰of the market share expected by ۲۰۲۳. In a study examining the impact of AI on e-marketing, they stated that AI is a modern science that aims to create a machine that imitates human intelligence. Used in many areas such as finance, the aim of this article is to study the impact of artificial intelligence applications on electronic marketing and its competitive advantage for Iraqi marketing companies (Nour Sadeq et al., ۲۰۲۳). Malek Al-Saud et al. (۲۰۲۳) studied the impact of artificial intelligence on Maritime Tourism industry technology in a study, and artificial intelligence (AI) has drastically transformed Maritime Tourism industry technology and marketing, prompting researchers to examine the strategic impact of these on Maritime Tourism

The research developed a conceptual framework based on personalization, customer service, content creation, campaign optimization, and predictive analytics to provide insights into how AI marketing technologies can be

used to enhance customer satisfaction in the cruise tourism industry. Troels Krapp and Maja Horst (۲۰۲۳) conducted a study examining AI in the Digital Single Market in Europe and concluded that European AI policy as the creation of the Digital Single Market has positioned the European Union (EU) as a global leader in ethical regulation of AI in stark contrast to the regulatory approaches of the United States and Chinese government surveillance. A market study on the challenges affecting AI adoption concluded that the main ones are the lack of data infrastructure and trained people and a lack of better understanding of applications. AI, as well as other disruptive technologies, opens up space for rethinking business models and not only improving existing processes but also allowing for the discovery of new opportunities. Fernando et al. (۲۰۲۳). Fatemeh Parvaneh et al. (۲۰۲۳) studied a study comparing the effect of information quality on economic profit and accounting profit using an artificial intelligence approach. The aim of this study is to identify the most influential factors for explaining economic and accounting profit using an artificial intelligence approach.

The results of the findings indicate that the variables "profit quality", "profit stability", "profit predictability", "profit smoothing", "profit transparency", "closeness to cash", "awareness", "conservatism" and "timeliness" have a significant relationship with economic and accounting profit. Mai Mahmoud Rezvan Siweh (۲۰۲۳) examined the use of artificial intelligence in digital out-of-home advertising in a study. The use of artificial intelligence in digital advertising has enabled traditional out-of-home advertising, artificial intelligence-based advertising, the most specific audience targeting and marketing communication with customers depending on the latest technologies. Artificial intelligence relies on some technologies such as big data, Internet of Things (IOT), facial recognition, temperature detection, vehicle and object recognition, and real-time audience targeting.

This research highlights the current trend of Logistics ۴,۰solutions by adopting robust data-intensive inventory forecasting with AI models to automate cross-border e-commerce services. So that e-commerce companies can provide a better plan for their inventory management. Ming Tang et al. (۲۰۲۳). An example of GigaDevice M&A from Silead (۲۰۲۳) in this research, with the support of national policies and the growth of market demand, the AI industry has developed rapidly. In order to enhance corporate value and competitiveness, mergers and acquisitions have become the choice of many AI companies. Based on the research results, this paper provides suggestions for the merger and acquisition of AI companies and provides a reference for the development of the AI industry. Stanislav Ivanov, Craig Webster (۲۰۱۹) in their research examined AI and robots in the economic foundations of Maritime Tourism and the economic foundations of the use of robots, AI and service automation in travel, Maritime Tourism and hospitality.

They examined the basic economic concepts that should be involved in the integration of robots, AI and service automation (RAISA) in the travel, Maritime Tourism and hospitality industry. Arthur Huang et al. (۲۰۲۱) in their research reviewed the current applications of artificial intelligence (AI) in the hospitality and Maritime Tourism industry. In addition, they propose a new assessment framework to inform the sensitivity of AI adoption. Current AI applications are ranked using a seven-dimensional framework based on Rogers' (۲۰۰۳) diffusion theory.

Artificial intelligence is transforming the Maritime Tourism industry by optimizing customer experiences, increasing operational efficiency, and ultimately impacting the return on investment for businesses. While AI offers significant opportunities for innovation and growth, addressing the challenges of data privacy, security, and initial investment is essential. By navigating these challenges wisely and effectively leveraging AI, Maritime Tourism businesses can open new avenues for profitability and sustainable growth in the increasingly competitive landscape of the Maritime Tourism industry. The overall objective of this research is AI and ROI in the

Maritime Tourism industry. In addition to the overall objective, it pursues the following sub-objectives:

1. Investigating ROI in the Maritime Tourism industry

2. The relationship between AI and ROI

3. AI in financial flows

2. Materials and Methods

The present study is applied research and was conducted in Iran. The participants in this study included a sample of ۳۸۴people active in the field of Maritime Tourism in ۱۴۰۲, who were selected from different sectors of the Maritime Tourism industry, including hotels, travel agencies, and tour operators. Since the size of the population was known, the Morgan table method was used for sampling.

Questionnaires were distributed among experts and specialists in the field of Maritime Tourism and artificial intelligence. The questionnaire was developed by the researcher and designed and standardized by the authors of this study. The survey was conducted from April ۶to July ۴, ۲۰۲۳. A total of ۴۸۳questionnaires were distributed and ۲۵incomplete responses were deducted, while ۴۸۵valid questionnaires were retrieved with an effective retrieval rate of .%۶۷,۲۰

Data on the adoption of artificial intelligence, operational metrics, and financial performance indicators were collected through structured surveys and archival research methods. Participants provided information about their organization's AI implementation status, operational processes, and financial results. Pearson correlation analysis was used to examine the strength and direction of linear relationships between AI adoption and various financial performance measures, such as revenue growth, profit margins, and customer satisfaction scores. In addition, regression analysis

was used to model the impact of AI adoption on ROI while controlling for potential confounding variables.

The research hypotheses were tested, and Pearson correlation tests were used to examine bivariate relationships between hypotheses, and finally, multiple regression analysis was used to examine the effects of each variable on the dependent variable. However, before that, the Kolmogorov-Smirnov test, which is used for this purpose, was used to ensure the normal distribution of the variables. This test examined the goodness of fit and examined whether the observations came from a given distribution and whether the data distribution was normal or not. Finally, it was determined that the significance level of the test was higher than the expected alpha of ۰,۰۵and the variables had a normal distribution. Accordingly, as mentioned, parametric tests such as Pearson and regression were used to examine the research hypotheses.

3. Findings and Discussion

1.3. Descriptive Analysis

In order to better understand the nature of the society studied in this research and to become more familiar with the research variables, it is necessary to process and describe the data before inferential analysis of the statistical data. Also, statistical description of the data is a step towards identifying the pattern that governs them and a basis for explaining the relationships between the variables used in the research.

1.1.3. Description of Demographic Variables:

1.1.1.3. Demographics Gender of Respondents:

Table ۱ shows the description of the sample according to their gender. As the data show, %۵۹are women and %۴۱are men. This variable had no unanswered cases.

Table1: Frequency distribution related to gender of respondents

Gender	Frequency	Percentage Frequency	Valid Percentage
Female	159	41	%41
Male	225	59	%59
Total	384	100	100

2.1.1.3. Age Demographics:

The age variable was measured in years as a numerical variable at an interval level. Therefore, due to the large number of age values, it is necessary to use the calculation of absolute frequency to describe this variable instead of relative frequency. The descriptive statistics of the age variable, including central tendency and skewness, are shown below. The data in Table ۲show that the average age of the respondents was ۳۵years old; the highest frequency (mode or peak) was ۳۷years old; the standard deviation of this variable was ۱۰and its variance was ۱۱۸. Also, the minimum age among the sample was ۲۵years old and the maximum age was ۶۱years old. This variable also had ۹unanswered cases.

Table ۲: Frequency distribution related to the age of respondents

Variable	Values
Average	35.82
Mode	37
Standard Deviation	10.866
Variance	118.067
Minimum	25
Maximum	61
Unanswered	9
Total	384

3.1.1.3. Demographics: Marital status of respondents:

Table ۳shows the description of the sample in terms of their marital status. As can be seen, ۵۳percent of the sample is single, and ۴۷percent is married (with a spouse).

Table ۳: Frequency distribution of respondents' marital status

Marital Status	Frequency	Frequency Percentage	Valid Percentage
Single	237	62	62
Married	147	38	38
Total	384	100	100
Unanswered	0	0	N/A
Grand Total	384	100	N/A

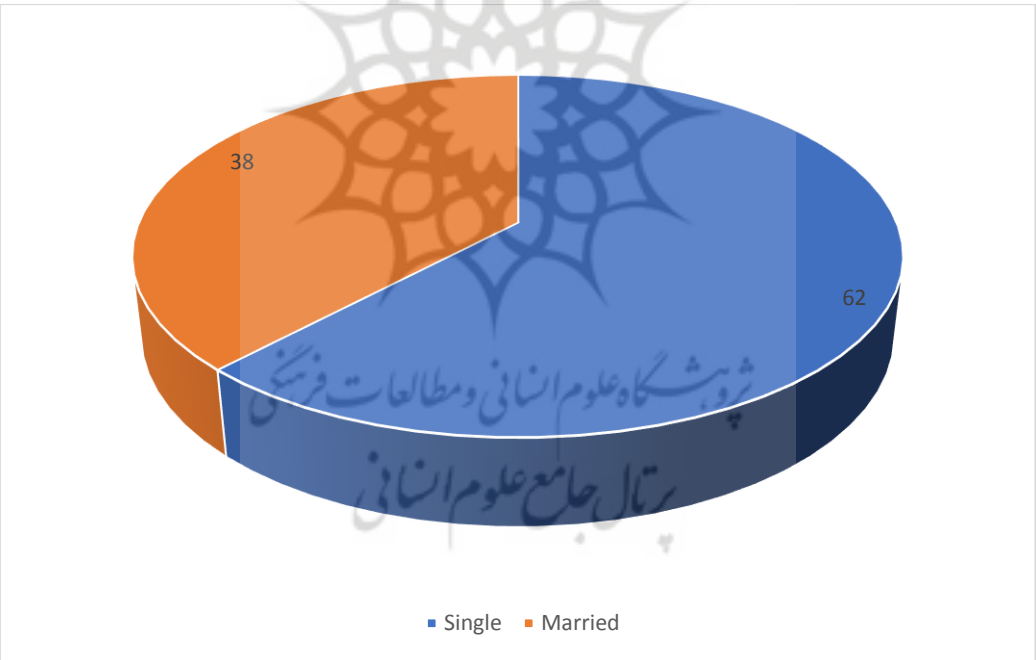

Figure 1: Frequency distribution of respondents' marital status

4.1.1.3. Demographics of the respondents' education:

Table ۴shows the description of the sample according to their education. Which is categorized into several levels of education. As can be seen, ۷۱ percent have a post-diploma and bachelor's degree (higher education) and ۲۹percent have a post-graduate degree and doctorate (additional education).

Table ۴: Frequency distribution of respondents' education

Education Level	Frequency	Frequency Percentage	Valid Percentage
Associate and Bachelor's Degree (Higher Education)	272	71	71
Master's and Doctorate Degree (Postgraduate Education)	112	29	29
Total	384	100	100
Unanswered	0	0	N/A
Grand Total	384	100	N/A

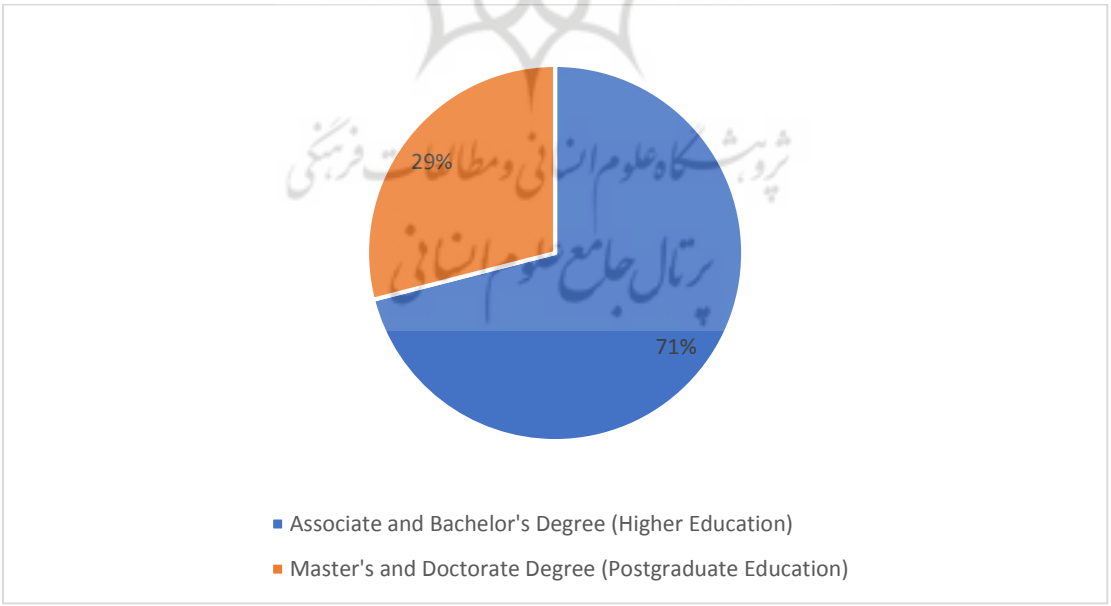

Figure ۴: Frequency distribution of respondents' education

5.1.1.3. Demographics of the respondents' occupations:

Table ۵shows the description of the sample in terms of their income, which is categorized in a rank order. According to the data in the table, %۶of the sample is made up of students. %۸are workers. %۲۳are employees, and %۱۱of the sample is made up of professionals. And %۵۲are professors and experts. This variable has no unanswered cases.

Table ۵: Frequency distribution related to respondents' occupation

Income Level	Frequency	Frequency Percentage	Valid Percentage
Student	25	6	2
Worker	30	8	5
Employee	89	23	53
Merchant	41	11	7
Professors and Experts	199	52	5
Total	384	100	100
Unanswered	0	0	N/A
Grand Total	384	100	N/A

2.3. Hypothesis Testing

In this section, the research hypotheses are subjected to testing. To examine the bivariate relationships among the hypotheses, Pearson correlation tests were utilized, and ultimately, multiple regression analysis was employed to assess the effects of each variable on the dependent variable. However, prior to this, the Kolmogorov-Smirnov test was used to ensure the normality of the distribution of the variables. This test assesses goodness-of-fit and determines whether the observations originate from a specified distribution and whether the data distribution is normal. It was ultimately

found that at the significance level of the test, it was higher than the expected alpha of ۰,۰۵, indicating that the variables follow a normal distribution. Accordingly, as mentioned, parametric tests such as Pearson and regression were used to examine the research hypotheses.

1.2.3. Examination of Regression Analysis Assumptions

1.1.1.2. Absence of Multicollinearity

The variance inflation factor (VIF) is a criterion for detecting multicollinearity. This factor indicates how much the variance of the estimated regression coefficients has increased due to the presence of correlated variables in the model. A VIF value greater than ۱۰indicates serious multicollinearity and undermines confidence in the results.

Table ۶: Multiple noncollinearity

Variable	Variance Inflation Factor
Artificial Intelligence	۸
Increased Brand Awareness, Tourist Attraction, and Revenue	۱
Reduced Costs and Increased Productivity	۴
Improved Tourist Experience and Increased Satisfaction	۷

As can be seen, all the values of the variance increase factor in the current research model are less than ۱۰, so there is no collinearity and therefore it is possible to use regression.

2.1.1.2. Correlation

Another way to examine collinearity in regression is to examine the correlation matrix of independent variables and determine variables with a high correlation coefficient. If the correlation values are close to ۱, the two

variables have a high correlation. The results of the correlation matrix in the current research are given in the following table:

Table ۷: Correlation matrix of research variables

		Artificial Intelligence	Increased Brand Awareness, Tourist Attraction, and Revenue	Reduced Costs and Increased Productivity	Improved Tourist Experience and Increased Satisfaction
Pearson coefficient values	Artificial Intelligence	1	0.115	0.298	0.114
	Increased Brand Awareness, Tourist Attraction, and Revenue	0.115	1	0.232	0.954
	Reduced Costs and Increased Productivity	0.298	0.232	1	0.242
	Improved Tourist Experience and Increased Satisfaction	0.114	0.954	0.242	1
Significance of coefficients	Artificial Intelligence	.	0.097	0	0.048
	Increased Brand Awareness, Tourist Attraction, and Revenue	0.037	.	0.004	0
	Reduced Costs and Increased Productivity	0	0.004	.	0.003
	Improved Tourist Experience and Increased Satisfaction	0.048	0	0.003	.

Table ۷represents the correlation matrix. The elements on its main diagonal are ۱, so they are symmetrical. The variables are significantly

correlated. The correlation value between artificial intelligence and the variable of increasing brand awareness, attracting tourists and increasing revenue is ۰,۱۱۵, and the correlation value between the variable of artificial intelligence and reducing costs and increasing productivity is ۰,۲۹۸, and the correlation value between the variable of artificial intelligence and the variable of improving tourist experience and increasing satisfaction is ۰,۱۱۴. Therefore, since none of these values are close to ۱, the variable does not have a high correlation and therefore we do not have collinearity.

3.1.1.2. Correlation Independence of errors

The value of the Durbin-Watson statistic shows that in this hypothesis, the errors (difference between the actual values and the values predicted by the regression equation) are independent of each other. In other words, the hypothesis of independence of errors is not rejected and the errors are not correlated with each other, so it is possible to use regression. In order to examine the independence of observations (independence of residual values or errors) from each other, the value obtained for the Durbin-Watson test should be between ۱,۵and ۲,۵. In this study, the value obtained for the Durbin-Watson is ۱,۵۷۵, which is within the specified range, so the errors are not correlated with each other, so it is possible to use regression.

4.1.1.2. Checking normality:

Before analyzing the data, their normality was checked, for which the Kolmogorov-Smirnov test was used. The results of the K-S test are presented separately for each variable in Table ۷. Considering the significance levels, it is clear that the data generally have a normal distribution. Considering the results, the test of the assumption of normality of the distribution of the measured variables (Kolmogorov-Smirnov test)

shows that the distribution of all variables in this study is normal. Because the Kolmogorov-Smirnov test for matching the sample distribution with a normal distribution is not significant (p>۰,۰۵).

Table ۷: K-S test to examine the normal distribution of physical research data

	Artificial Intelligence	Increased Brand Awareness, Tourist Attraction, and Revenue	Reduced Costs and Increased Productivity	Improved Tourist Experience and Increased Satisfaction
Count	384	384	384	384
Mean	63.7481	37.7231	2.425	12.5326
Standard Deviation	13.63612	7.94459	0.77582	7.5214
Maximum Difference	0.096	0.101	0.371	0.93
Standard Error	0.068	0.095	0.229	0.374
Minimum Difference	-0.096	-0.101	-0.371	-0.215
Z-Statistic	0.926	1.104	1.147	1.935
Significance	0.358	0.175	0.144	0.198

Considering the significance levels of the research variables in Table ۷, it is clear that, in general, the data related to them have a normal distribution.

4. Test

In this section, the relationship between variables is tested. The research questions include:

1.4. Using artificial intelligence in Maritime Tourism marketing and advertising can help increase brand awareness, attract tourists, and increase revenue.

2.4. Using artificial intelligence in managing Maritime Tourism resources and infrastructure can help reduce costs and increase productivity

3.4. Using artificial intelligence in providing Maritime Tourism services can help improve the tourist experience and increase satisfaction. For the test, multiple regression analysis with simultaneous entry was used. The t-statistic values of each variable and their significance coefficient, as well as the beta value (path coefficient), were used for this test.

Table ۸: Coefficient of determination for checking the accuracy of the selection of research variables

Multiple Correlation R	Coefficient of Determination	Adjusted Coefficient of Determination	Standard Error Estimation
۵0.35	0.326	0.306	15.746

The above table shows that the independent variables of artificial intelligence explain a total of ۳۰,۶percent of the variable of increasing return on investment in Maritime Tourism The small difference in the

values of the squared coefficient of determination and the squared adjusted coefficient of determination indicates that the independent variables (artificial intelligence) in the research model have been correctly selected.

Table ۹: ANOVA test to check the significance of the research model

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-statistic	Significance
Regression	560.4463	2	780.2231	9.057	0
Residual	671.313	382	423.246		
Total	231.3576	384			

The ANOVA values in Table ۹test the overall significance of the regression model. The value of the significance test statistic of the model, which is the F statistic, is ۹,۰۵۷, which, considering the value of the significance coefficient of the test, which is ۰,۰۰۰and less than ۰,۰۵, the null hypothesis is rejected with a confidence of %۰,۹۵, meaning that the existing model is significant with a confidence of %۹۵and, based on the available data, this model is able to express the changes in the variable of increasing the return on investment in Maritime Tourism

In Table ۱۰, the estimated coefficients and their test characteristics are seen. As you can see in the table below, the constant value in the model has appeared with a value of ۶۲,۶۸۶. It is also clear that the coefficients of each of the variables are positive and, considering the smaller Sig value, the variable is rejected from the value of ۰,۰۵, the null hypothesis is rejected. Again, this is evidence of the suitability of the regression model.

Table ۱۰: Regression analysis to estimate the effect of independent variables on the dependent variable

Unstandardized Effects	Standardized Effects	t-value	Sig (Significance Level)
Constant	41.079		4.882

Artificial Intelligence in Marketing and Advertising of Maritime Tourism	0.237	0.104	0.195
Artificial Intelligence in Management of Maritime Tourism Resources and Infrastructure	0.72	0.179	0.344
Artificial Intelligence in Providing Maritime Tourism Services	0.413	0.168	0.231

In this section, any coefficient with a larger Beta is more important in the regression model.

۱.The artificial intelligence variable in Maritime Tourism marketing and advertising is effective by ۱۹,۵ percent in increasing brand awareness, attracting tourists, and increasing income. As can be seen, there is a relationship between these two variables with a t value greater than ۱,۹۶, i.e. ۲,۲۸۰, and a significance coefficient less than ۰,۰۵, i.e. ۰,۰۲۴, which shows that these two variables have a significant and positive relationship. Therefore, it can be said that the use of artificial intelligence in Maritime Tourism marketing and advertising can help increase brand awareness, attract tourists, and increase income. Therefore, this hypothesis is confirmed.

2. Also, the artificial intelligence variable in Maritime Tourism resource and infrastructure management has had a ۳۴,۴ percent effect on reducing costs and increasing productivity. As can be seen, there is a relationship between these two variables with a t value greater than ۱,۹۶, i.e. ۴,۰۲۵, and a significance coefficient less than ۰,۰۵, i.e. ۰,۰۰۰, which shows that these two variables have a significant relationship with each other. Therefore, it can be said that the use of artificial intelligence in the management of Maritime Tourism resources and infrastructure can help

reduce costs and increase productivity. Therefore, this hypothesis is confirmed.

3. The artificial intelligence variable in providing Maritime Tourism services has had a ۲۳,۱ percent impact on improving the tourist experience and increasing satisfaction. As can be seen, there is a relationship between these two variables with a t value greater than ۱,۹۶, i.e. ۲,۱۶, and a significance coefficient less than ۰,۰۵, i.e. ۰,۰۳۱, which shows that these two variables have a significant relationship with each other. Therefore, it can be said that the use of artificial intelligence in providing Maritime Tourism services can help improve the tourist experience and increase satisfaction. Therefore, this hypothesis is confirmed.

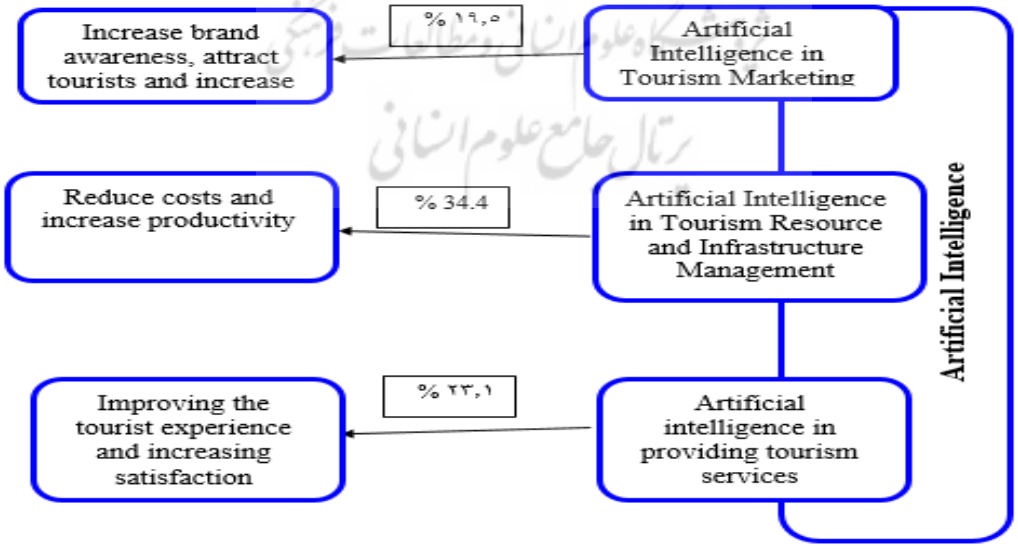

Figure1: Path analysis model

Conclusion:

Through the utilization of artificial intelligence, businesses are able to deliver tailored services, enhance operational efficiency, and promote sustainability. AI-driven chatbots and virtual assistants facilitate immediate and customized responses to customer inquiries, thereby increasing customer satisfaction and minimizing response durations. Furthermore, machine learning algorithms possess the capability to scrutinize extensive datasets, including customer preferences and behaviors, to generate relevant recommendations for travel itineraries, lodging options, and recreational activities. Additionally, the implementation of AI can significantly expedite the return on investment for businesses, particularly within the Maritime Tourism sector.

This research investigated the integration of artificial intelligence (AI) and return on investment (ROI) within the Maritime Tourism sector. While the study endeavored to explore various dimensions of this topic, it is important to acknowledge certain limitations. The intricate nature and challenges associated with the implementation of AI techniques may impede their broader acceptance in the Maritime Tourism industry. In our concluding remarks, we correlate our results with the original aims established at the outset of this research. This study consolidates the existing body of literature regarding AI applications in Maritime Tourism ROI, offering a thorough insight into the current advancements in this area. The principal themes, advantages, and constraints identified in our analysis contribute significantly to theoretical discourse and enhance the academic comprehension of AI's influence on Maritime Tourism ROI. Additionally,

our findings underscore prospective avenues for future inquiry and advocate for more targeted investigations into the effective, ethical, and sustainable application of AI in Maritime Tourism.

This review offers significant insights for professionals in the industry and policymakers from a practical standpoint. The themes identified within the review can inform the deployment of AI solutions in Maritime Tourism, as well as enhance communication strategies and decision-making frameworks. Additionally, the strengths and weaknesses of AI applications discussed herein can act as a guide for practitioners in Maritime Tourism, enabling them to leverage the advantages of AI while addressing its associated risks.

The findings of this research not only fulfill our main goals but also provide significant theoretical insights and practical recommendations for the future advancement of artificial intelligence within the Maritime Tourism sector.

This study elucidates the role of artificial intelligence (AI) within the Maritime Tourism sector, yielding significant implications for scholarly inquiry in this domain. Initially, through a comprehensive review and critique of the current literature, we have discerned prevalent themes, strengths, and weaknesses associated with AI applications in Maritime Tourism. These insights can assist researchers in pinpointing areas necessitating further investigation and in crafting more pertinent research inquiries. Furthermore, our research offers enhanced understanding of the effective application of AI in optimizing return on investment (ROI) within the Maritime Tourism industry. Lastly, the study underscores the imperative for a responsible and sustainable integration of AI in Maritime Tourism, presenting a potential avenue for researchers interested in examining the convergence of technology and sustainability in this field. Based on the findings and recognized limitations of this study, several prospective research directions regarding the application of AI to ROI in Maritime Tourism can be proposed. Primarily, there is a pressing need to

investigate methodologies that tackle the difficulties related to interpreting and elucidating the results generated by AI models. Given that these models frequently employ intricate mathematical algorithms, it is essential to enhance the comprehensibility and reliability of the results for non-specialists. This may involve the creation of methods or tools that offer clearer explanations of the fundamental processes and decision-making mechanisms of AI models, thereby fostering trust and understanding among stakeholders regarding the outputs.

Addressing the financial and technical obstacles to the extensive integration of artificial intelligence in the Maritime Tourism sector represents a critical avenue for further investigation. The deployment of AI technologies often necessitates substantial financial investment, encompassing expenses related to the acquisition, installation, maintenance, and upgrading of software, as well as the training of personnel. Identifying strategies to mitigate these costs, such as exploring collaborative frameworks for the sharing of AI resources or pinpointing economically viable AI solutions, could facilitate broader access to and utilization of AI within the Maritime Tourism industry. Furthermore, tackling the technical difficulties and ensuring the availability of necessary computing resources and expertise for effective AI implementation is of paramount importance.

The investigation of innovative AI applications aimed at enhancing sustainability and customer experience within Maritime Tourism represents a significant avenue for future inquiry. This study has highlighted instances where AI has played a role in sustainability initiatives, including the optimization of resource distribution and the enhancement of waste management practices. However, there remains a vast landscape of opportunities yet to be explored. Further research into how AI can bolster sustainable practices in Maritime Tourism—such as minimizing carbon footprints, encouraging responsible tourism behaviors, and reinforcing conservation initiatives—could be instrumental in achieving the industry's

long-term environmental objectives. Additionally, there exists considerable potential for further examination of AI's role in enriching customer experiences in the Maritime Tourism domain. While this study has underscored various AI-driven technologies and their influence on personalization and service delivery, there are ample opportunities to investigate specific applications and their efficacy in greater detail. Analyzing the capabilities of emerging technologies, including natural language processing, sentiment analysis, and emotion recognition, in customizing customer interactions and enhancing satisfaction could yield substantial progress in this field.

Reference:

Al-Nafjan, Abeer, Mashael Aldayel, and Amira Kharrat. 2023. Systematic Review and Future Direction of Neuro-Tourism Research. Brain Sciences 13: 682.

Aly, Heidi. 2020. Digital transformation, development and productivity in developing countries: Is artificial intelligence a curse or a blessing? Review of Economics and Political Science 7: 238–56.

Aromataris, Edoardo, Ritin Fernandez, Christina M. Godfrey, Cheryl Holly, Hanan Khalil, and Patraporn Tungpunkom. 2015. Summarizing Systematic Reviews: Methodological Development, Conduct and Reporting of an Umbrella Review Approach. International Journal of Evidence-Based Healthcare 13: 132–40.

Blackwood, Diana. 2016. Taking it to the next level: Reviews of sytematic reviews. HLA News, 13–15. Available online: https://search.informit.org/doi/10.3316/INFORMIT.227711985972059 (accessed on 8 June 2023).

Cain, Lisa Nicole , John H. Thomas, and Miguel Alonso Jr. 2019. From Sci-Fi to Sci-Fact: The State of Robotics and AI in the Hospitality Industry. Journal of Hospitality and Tourism Technology 10: 624–50.

Chen, Mengyuan, Zheng Jiang, Zezheng Xu, Aihua Shi, Mingyan Gu, and Yuanzhe Li. 2022a. Overviews of Internet of Things Applications in China's Hospitality Industry. Processes 10: 1256.

Chen, Yili, Congdong Li, and Han Wang. 2022b. Big Data and Predictive Analytics for Business Intelligence: A Bibliographic Study (2000–2021). Forecasting 4: 767–86. [

Chi, Oscar Hengxuan, Gregory Denton, and Dogan Gursoy. 2020. Artificially Intelligent Device Use in Service Delivery: A Systematic Review, Synthesis, and Research Agenda. Journal of Hospitality Marketing & Management 29: 757–86.

Cooper, Harris, and Alison C. Koenka. 2012. The overview of reviews: Unique challenges and opportunities when research syntheses are the principal elements of new integrative scholarship. American Psychologist 67: 446–62.

D'Cruz, Premilla, Shuili Du, Ernesto Noronha, K. Praveen Parboteeah, Hannah Trittin-Ulbrich, and Glen Whelan. 2022. Technology, Megatrends and Work: Thoughts on the Future of Business Ethics. Journal of Business Ethics 180: 879–902.

Das, Gopal, Shailendra Pratap Jain, Durairaj Maheswaran, Rebecca J. Slotegraaf, and Raji Srinivasan. 2021. Pandemics and Marketing: Insights, Impacts, and Research Opportunities. Journal of the Academy of Marketing Science 49: 835–54.

Dellermann, Dominik, Philipp Ebel, Matthias Söllner, and Jan Marco Leimeister. 2019. Hybrid Intelligence. Business & Information Systems Engineering 61: 637–43.

Doborjeh, Zohreh, Nigel Hemmington, Maryam Doborjeh, and Nikola Kasabov. 2022. Artificial Intelligence: A Systematic Review of Methods and Applications in Hospitality and Tourism. International Journal of Contemporary Hospitality Management 34: 1154–76. [Google Scholar] [CrossRef]

A Few Useful Things to Know about Machine Learning. Communications of the ACM 55: 78–87. [Google Scholar] [CrossRef] [Green Version]

Elkhwesky, Zakaria, Younès El Manzani, and Islam Elbayoumi Salem. 2022. Driving Hospitality and Tourism to Foster Sustainable Innovation: A Systematic Review of COVID-19-Related Studies and Practical Implications in the Digital Era. Tourism and Hospitality Research. [Google Scholar] [CrossRef]

Essien, Aniekan, and Godwin Chukwukelu. 2022. Deep Learning in Hospitality and Tourism: A Research Framework Agenda for Future Research. International Journal of Contemporary Hospitality Management 34: 4480–515. [Google Scholar] [CrossRef]

Euromonitor International. 2023. Top Three Travel Trends for 2023. Euromonitor International. Available online: https://www.euromonitor.com/article/top-three-travel-trends-for-2023 (accessed on 28 May 2023).

Gaur, Loveleen, Anam Afaq, Gurmeet Singh, and Yogesh Kumar Dwivedi. 2021. Role of Artificial Intelligence and Robotics to Foster the Touchless Travel during a Pandemic: A Review and Research Agenda. International Journal of Contemporary Hospitality Management 33: 4079–98. [Google Scholar] [CrossRef]

Gerke, Sara, Timo Minssen, and Glenn Cohen. 2020. Ethical and Legal Challenges of Artificial Intelligence-Driven Healthcare. In Artificial Intelligence in Healthcare. Amsterdam: Elsevier, pp. 295–336. [Google Scholar] [CrossRef]

Giotis, Georgios, and Evangelia Papadionysiou. 2022. The Role of Managerial and Technological Innovations in the Tourism Industry: A Review of the Empirical Literature. Sustainability 14: 5182. [Google Scholar] [CrossRef]

Goodfellow, Ian J., Jean Pouget-Abadie, Mehdi Mirza, Bing Xu, David Warde-Farley, Sherjil Ozair, Aaron Courville, and Yoshua Bengio. 2014. Generative Adversarial Networks. arXiv. [Google Scholar] [CrossRef]

Grant, Maria J., and Andrew Booth. 2009. A typology of reviews: An analysis of 14 review types and associated methodologies. Health Information Libraries Journal 26: 91–108. [Google Scholar] [CrossRef] [PubMed]

Hartling, Lisa, Jeanne-Marie Guise, Elisabeth Kato, Johanna Anderson, Suzanne Belinson, Elise Berliner, and Donna M. Dryden. 2015. A Taxonomy of Rapid Reviews Links Report Types and Methods to Specific Decision-Making Contexts. Journal of Clinical Epidemiology 68: 1451–62.e3. [Google Scholar] [CrossRef] [PubMed] [Green Version]

He, Kaiming, Xiangyu Zhang, Shaoqing Ren, and Jian Sun. 2015. Deep Residual Learning for Image Recognition. arXiv. [Google Scholar] [CrossRef]

Hunt, Harriet, Alex Pollock, Pauline Campbell, Lise Estcourt, and Ginny Brunton. 2018. An introduction to overviews of reviews: Planning a relevant research question and objective for an overview. Systematic Reviews 7: 39. [Google Scholar] [CrossRef] [Green Version]

Ivanov, Stanislav, Ulrike Gretzel, Katerina Berezina, Marianna Sigala, and Craig Webster. 2019. Progress on Robotics in Hospitality and Tourism: A Review of the Literature. Journal of Hospitality and Tourism Technology 10: 489–521. [Google Scholar] [CrossRef]

Jiao, Eden Xiaoying, and Jason Li Chen. 2019. Tourism Forecasting: A Review of Methodological Developments over the Last Decade. Tourism Economics 25: 469–92. [Google Scholar] [CrossRef]

Kelly, Shannon E., David Moher, and Tammy J. Clifford. 2016. Quality of conduct and reporting in rapid reviews: An exploration of compliance with PRISMA and AMSTAR guidelines. Systematic Reviews 5: 79. [Google Scholar] [CrossRef] [Green Version]

Kirtil, Ismail Gökay, and Volkan Askun. 2021. Artificial intelligence in tourism: A review and bibliometrics research. Advances in Hospitality and Tourism Research-AHTR 9: 205–33. [Google Scholar] [CrossRef]

Kumar, Koushal, and Gour Sundar Mitra Thakur. 2012. Advanced Applications of Neural Networks and Artificial Intelligence: A Review. International Journal of Information Technology and Computer Science 4: 57–68. [Google Scholar] [CrossRef]

Leung, Xi Yu. 2020. Technology-Enabled Service Evolution in Tourism: A Perspective Article. Tourism Review 75: 279–82. [Google Scholar] [CrossRef]

Li, Minglong, Dexiang Yin, Hailian Qiu, and Billy Bai. 2021a. A Systematic Review of AI Technology-Based Service Encounters: Implications for Hospitality and Tourism Operations. International Journal of Hospitality Management 95: 102930. [Google Scholar] [CrossRef]

Li, Xin, Rob Law, Gang Xie, and Shouyang Wang. 2021b. Review of Tourism Forecasting Research with Internet Data. Tourism Management 83: 104245. [Google Scholar] [CrossRef]

Liu, Han, Ying Liu, Yanli Wang, and Changchun Pan. 2019. Hot Topics and Emerging Trends in Tourism Forecasting Research: A Scientometric Review. Tourism Economics 25: 448–68. [Google Scholar] [CrossRef]

Loureiro, Sandra Maria Correia, Ahmed Al-Ansi, Hyun Bae Ryu, Antonio Ariza-Montes, and Hye-Shin Kim. 2022. Culture, Heritage Looting, and Tourism: A Text Mining Review Approach. Frontiers in Psychology 13: 944250. [Google Scholar] [CrossRef]

Luitse, Dieuwertje, and Wiebke Denkena. 2021. The Great Transformer: Examining the Role of Large Language Models in the Political Economy of AI. Big Data & Society 8: 20539517211047736. [Google Scholar] [CrossRef]

Lunny, Carole, Joanne E. McKenzie, and Steve McDonald. 2016. Retrieval of Overviews of Systematic Reviews in MEDLINE Was Improved by the Development of an Objectively Derived and Validated Search Strategy. Journal of Clinical Epidemiology 74: 107–18. [Google Scholar] [CrossRef]

Lunny, Carole, Sue E. Brennan, Steve McDonald, and Joanne E. McKenzie. 2018. Toward a comprehensive evidence map of overview of systematic review methods: Paper 2—Risk of bias assessment; synthesis, presentation and summary of the findings; and assessment of the certainty of the evidence. Systematic Reviews 7: 159. [Google Scholar] [CrossRef] [PubMed] [Green Version]

Lv, Hui, Si Shi, and Dogan Gursoy. 2022. A Look Back and a Leap Forward: A Review and Synthesis of Big Data and Artificial Intelligence Literature in Hospitality and Tourism. Journal of Hospitality Marketing & Management 31: 145–75. [Google Scholar] [CrossRef]

Matiza, Tafadzwa. 2020. Post-COVID-19 crisis travel behaviour: Towards mitigating the effects of perceived risk. Journal of Tourism Futures 8: 99–108. [Google Scholar] [CrossRef]

McCulloch, Warren S., and Walter Pitts. 1943. A Logical Calculus of the Ideas Immanent in Nervous Activity. The Bulletin of Mathematical Biophysics 5: 115–33. [Google Scholar] [CrossRef]

Minsky, Marvin, and Seymour Papert. 1969. Perceptrons: An Introduction to Computational Geometry. Cambridge, MA: MIT Press. [Google Scholar]

Moher, David, Alessandro Liberati, Jennifer Tetzlaff, and Douglas G. Altman. 2009. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. BMJ 339: b2535. [Google Scholar] [CrossRef] [Green Version]

Ndaguba, Emeka Austin, Jua Cilliers, and Sumita Ghosh. 2022. A Systematic Review of a City in a City: An Aerotropolitan Perspective. Land 11: 1499. [Google Scholar] [CrossRef]

Osei, Benjamin Appiah, Neethiahnanthan Ari Ragavan, and Henry Kofi Mensah. 2020. Prospects of the Fourth Industrial Revolution for the Hospitality Industry: A Literature Review. Journal of Hospitality and Tourism Technology 11: 479–94. [Google Scholar] [CrossRef]

Page, Matthew J., Larissa Shamseer, Douglas G. Altman, Jennifer Tetzlaff, Margaret Sampson, Andrea C. Tricco, and Ferrán Catalá-López. 2016. Epidemiology and Reporting Characteristics of Systematic Reviews of Biomedical Research: A Cross-Sectional Study. PLoS Medicine 13: e1002028. [Google Scholar] [CrossRef] [Green Version]

Page, Matthew J., Joanne E. McKenzie, Patrick M. Bossuyt, Isabelle Boutron, Tammy C. Hoffmann, Cynthia D. Mulrow, and Larissa Shamseer. 2021.

The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. Systematic Reviews 10: 89. [Google Scholar] [CrossRef] [PubMed]

Pieper, Dawid, Roland Buechter, Petra Jerinic, and Michaela Eikermann. 2012. Overviews of Reviews Often Have Limited Rigor: A Systematic Review. Journal of Clinical Epidemiology 65: 1267–73. [Google Scholar] [CrossRef] [PubMed]

Pollock, Michelle, Ricardo M. Fernandes, Lorne A. Becker, Robin Featherstone, and Lisa Hartling. 2016. What Guidance Is Available for Researchers Conducting Overviews of Reviews of Healthcare Interventions? A Scoping Review and Qualitative Metasummary. Systematic Reviews 5: 190. [Google Scholar] [CrossRef] [Green Version]

Pollock, Michelle, Ricardo M. Fernandes, Lorne A. Becker, Dawid Pieper, and Lisa Hartling. 2020. Overviews of Reviews. In Cochrane Handbook for Systematic Reviews of Interventions Version 6.0. Edited by Julian Higgins, James Thomas, Jacqueline Chandler, Miranda Cumpston, Tianjing Li, Matthew Page and Vivian Welch. London: Cochrane. Available online: https://training.cochrane.org/handbook/current/chapter-v (accessed on 8 June 2023).

Rahmadian, Eko, Daniel Feitosa, and Andrej Zwitter. 2022. A Systematic Literature Review on the Use of Big Data for Sustainable Tourism. Current Issues in Tourism 25: 1711–30. [Google Scholar] [CrossRef]

Russell, Stuart J., Peter Norvig, and Ernest Davis. 2010. Artificial Intelligence: A Modern Approach, 3rd ed. Prentice Hall Series in Artificial Intelligence; Upper Saddle River: Prentice Hall. [Google Scholar]

Samara, Dimitra, Ioannis Magnisalis, and Vassilios Peristeras. 2020. Artificial Intelligence and Big Data in Tourism: A Systematic Literature Review. Journal of Hospitality and Tourism Technology 11: 343–67. [Google Scholar] [CrossRef]

Sharma, Gagan Deep, Asha Thomas, and Justin Paul. 2021. Reviving Tourism Industry Post-COVID-19: A Resilience-Based Framework. Tourism Management Perspectives 37: 100786. [Google Scholar] [CrossRef]

Soliman, Mohammad, Tarek Fatnassi, Islam Elgammal, and Ronnie Figueiredo. 2023. Exploring the Major Trends and Emerging Themes of Artificial Intelligence in the Scientific Leading Journals amidst the COVID-19 Era. Big Data and Cognitive Computing 7: 12. [Google Scholar] [CrossRef]

Song, Hayan, Richard T. R. Qiu, and Jinah Park. 2019. A Review of Research on Tourism Demand Forecasting. Annals of Tourism Research 75: 338–62. [Google Scholar] [CrossRef]

Thayyib, P. V., Rajesh Mamilla, Mohsin Khan, Humaira Fatima, Mohd Asim, Imran Anwar, M. K. Shamsudheen, and Mohd Asif Khan. 2023. State-of-the-Art of Artificial Intelligence and Big Data Analytics Reviews in Five Different Domains: A Bibliometric Summary. Sustainability 15: 4026. [Google Scholar] [CrossRef]

Thomson, Denise. 2014. Evidence Synthesis in Child Health: Overviews of Reviews. Evidence-Based Child Health: A Cochrane Review Journal 9: 1–2. [Google Scholar] [CrossRef] [PubMed]

Thomson, Denise, Kelly Russell, Lorne Becker, Terry Klassen, and Lisa Hartling. 2010. The evolution of a new publication type: Steps and challenges of producing overviews of reviews. Research Synthesis Methods 1: 198–211. [Google Scholar] [CrossRef] [PubMed]

Turing, Alan M. 1950. Computing Machinery and Intelligence. Mind 59: 433–60. [Google Scholar] [CrossRef]

Tussyadiah, Iis. 2020. A Review of Research into Automation in Tourism: Launching the Annals of Tourism Research Curated Collection on Artificial Intelligence and Robotics in Tourism. Annals of Tourism Research 81: 102883. [Google Scholar] [CrossRef]

UNWTO. 2023. World Tourism Barometer: May 2023|UNWTO. Available online: https://en.unwto-ap.org/news/worldtourismbarometer_may2023/ (accessed on 8 June 2023).

Vaswani, Ashish, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N. Gomez, Lukasz Kaiser, and Illia Polosukhin. 2017. Attention Is All You Need. arXiv. [Google Scholar] [CrossRef]

Worswick, Julia, S. Carolyn Wayne, Rachel Bennett, Michelle Fiander, Alain Mayhew, Michelle C. Weir, Katrina J. Sullivan, and Jeremy M. Grimshaw. 2013. Improving Quality of Care for Persons with Diabetes: An Overview of Systematic Reviews—What Does the Evidence Tell Us? Systematic Reviews 2: 26. [Google Scholar] [CrossRef] [Green Version]

Yang, Chih-Hai. 2022. How Artificial Intelligence Technology Affects Productivity and Employment: Firm-Level Evidence from Taiwan. Research Policy 51: 104536. [Google Scholar] [CrossRef]

Yang, Jiaji, and Esying Chew. 2021. A Systematic Review for Service Humanoid Robotics Model in Hospitality. International Journal of Social Robotics 13: 1397–410. [Google Scholar] [CrossRef]

Ye, Huiyue, Sunny Sun, and Rob Law. 2022. A Review of Robotic Applications in Hospitality and Tourism Research. Sustainability 14: 827. [Google Scholar] [CrossRef]

Yeh, Chu Chen Rosa, Cze Chiun Jasmine Wong, Wei Wen Vera Chang, and Chih Chien Steven Lai. 2020. Labor Displacement in Artificial Intelligence Era: A Systematic Literature Review. Taiwan Journal of East Asian Studies 17: 25–75. [Google Scholar] [CrossRef]

Yuan, Ann, Andy Coenen, Emily Reif, and Daphne Ippolito. 2022. Wordcraft: Story Writing With Large Language Models. Paper presented at 27th International Conference on Intelligent User Interfaces (IUI'22), Helsinki, Finland, March 22–25; New York: Association for Computing Machinery, pp. 841–52. [Google Scholar] [CrossRef]