

# E-tourism in Algeria: New Digital Marketing Strategy

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**Abstract:** *Tourism has become an important economic and social sector, contributing substantially to national income and employment in countries with tourist attractions.*

*In an era of globalization and fierce competition, meeting customer needs and quality standards requires the adoption of information and communication technologies (ICT).*

*By adopting ICT solutions, particularly in the area of marketing, tourism stakeholders can respond effectively to market demands, improve the consumer experience and gain a competitive advantage.*

*In addition, this research focuses on understanding the behavior of tourists and their use of technological tools.*

*Moreover, the government needs to diversify their economies and shift focus from the energy sector towards sustainable industries, as it will contribute to long-term economic stability and reduce dependence on a single sector.*

**Keywords:** ICT, E-Tourist, Technology, Stakeholders, Digital marketing.

## I. Introduction

This article investigates the use of technology in the Algerian tourism industry. It is divided into two parts, the first focusing on Algerian tourists' behavior and their use of technology, with the second, analyzing the use of modern technology as a strategic tool for marketing decisions in the tourism industry.

Two questionnaires were issued in order to achieve the study's objectives: one for national and foreign Algerian tourists and the other for tourism service providers.

The survey findings will then be analyzed and presented using statistical methods and tools. Finally, the findings will be summarized and discussed. We will start by presenting a comprehensive overview of our research methodology and objectives. Subsequently, an examination of the employed sampling method and a discussion on the encountered challenges during this procedure will be presented. Finally, we will delve into the execution of our survey structure, providing detailed insights into the different stages and steps undertaken to collect the requisite data for our study.

## II. Method

### 2.1 Research Methodology

We used a hypothetico-deductive method to validate our hypotheses, which entails creating, gathering, and analyzing data to confirm or disprove hypotheses.

Quantitative research methods were utilized to examine the study population. To obtain the necessary quantitative data for achieving our research objectives, a questionnaire was selected as the primary instrument for data collection. This method was chosen due to its ability to effectively gather and analyze numerical data, which is crucial for addressing our research aims.

#### 2.1.1 Research Objectives

The objective of our research is to assess the influence of digitalization on the Algerian tourism sector, including its impact on tourist behavior and the extent to which different stakeholders utilize digital technologies, particularly in the realm of digital marketing. To achieve this aim and to answer the problematic posed which is: *How digital transformation Impact on the Tourism Industry in Algeria?*

Our analytical methodology involved a descriptive study to ascertain the characteristics of our samples and gain a comprehensive understanding of the constructs being studied. Additionally, we determined the most relevant relationships between variables.

### 2.1.2 Sampling Method

« Sample size refers to the number of individuals or objects included in a study or experiment» Fowler Jr, F. J. (2013) Probability sampling or random sampling will be utilized to select a representative sample of tourists and tourism service providers in Algeria, which means every member of the population has a chance of being selected. It is mainly used in quantitative research.

Structured questionnaires will be administered online to both samples via Facebook, Instagram, and LinkedIn, while only service providers will be given in the form of an additional offline questionnaire.

All questions were reviewed by the supervisor of this thesis, and the questionnaires were developed using the Google Forms tool. It was made available online from 01/03/2023 until 01/05/2023. During this period, we collected 296 responses from tourists and 71 responses from tourism service providers.

### 2.1.3 Sample Size Calculation

When the population is unknown, we use The Cochran formula:

$$n = Z^2 * p q / e^2$$

**Knowing that:**

**n:** sample size.

**Z:** confidence level according to the normal law for a confidence level of 95%, i.e.

$Z = 1.96$  (This value represents the number of standard deviations from the mean of a Normal distribution that encompasses 95% of the area under the curve).

**P:** estimated proportion of an attribute; when it is unknown, we take  $P = 0.50$

**e:** margin of error,  $e = 0,05$

**q:**  $1-p$

And the formula becomes:

$$N = (1,96)^2 (0,50 * 0,50) / 0,05^2$$

$$N = 384$$

As a result, the findings may not completely represent Algeria's whole tourist and tourism service provider community. we acknowledge the challenges we had in collecting data due to time and resource restrictions, Despite the constraints, we made every effort to ensure the reliability and validity of the collected data, and we assessed the potential impact of the small sample size on the generality of the population.

### 2.1.4 Survey Structure

A questionnaire is a research tool that consists of a series of questions or prompts that are used to gather information from respondents.

In our case, the questionnaires that we developed consist of two separate surveys, one aimed at tourists containing twenty-one (21) questions it is divided into four parts:

- The first part includes questions related to general information about the tourists who answered the questionnaire including their gender, age, education level, and professional status,
- The second part gathers data on travel behavior, such as reasons and frequency of traveling,
- The third part comprises questions on the security of personal data and the use of technology in the tourism field,
- The last part consists of the future of technology in the Algerian tourism sector, and the other aimed at tourism service providers containing sixteen (16) questions it is divided into three parts:
  - The first part collects questions about business type and technology usage by suppliers of tourism,
  - The second part, consisting of two questions, aims to assess the marketing performance,
  - the third part delves into the use of technology and the associated issues in the tourist business,

Both questionnaires have been designed with simple, clear, and short questions that are easy to understand for the sample and we used French as a communication language. During the development of the two questionnaires, we were inspired by survey reports and various market research studies.

Types of questions used in surveys include:

- **Demographic Questionnaire:** This type of questionnaire collects information about the respondent's demographic characteristics, such as age, gender, education level, and occupation. It is useful for understanding the characteristics of the survey sample and identifying potential biases.
- **Likert Scale Questionnaire:** This type of questionnaire measures attitudes or opinions on a scale ranging from strongly agree to strongly disagree.
- **Dichotomous Questionnaire:** This type of questionnaire presents the respondent with only two possible response options, such as "yes" or "no"
- **Closed Questions:** In these questions, respondents have only a limited choice of answers.
- **With Ranking:** the respondent has to choose the answer they prefer on a scale from 1 to 10
- **Semi-open Questions:** Through these questions, the respondent has an "Other" proposal to answer their choice.
- **Multiple Choice Questions with one or more answers:** these provide the respondent with a list of possible choices, from which there can select an answer or several answers depending on the question.

## 2.2. Analysis Method

The obtained data were processed and analyzed with statistical software packages Excel 2021 and SPSS version 25

### III. Results and Discussions

#### 3.1 Data Analysis and Results

In this second section, we will present two distinct studies, The first study aims to investigate tourist behavior and their use of technology, with a specific focus on understanding their involvement with technology during their travel experience in Algeria, the second part of the research analyze a sample of tourism service providers and their use of contemporary technology as a strategic tool for making marketing decisions in the tourism sector.

We will commence by analyzing our samples using the first procedure, which is flat sorting. This will involve examining the distribution of responses for each variable individually. Following that, we will enhance our descriptive analysis by conducting a Cross-sorting analysis, which involves combining the observations of two variables into a single table. This will allow us to examine the relationships and associations between different variables.

##### 3.1.1 General Information of the Survey Respondents

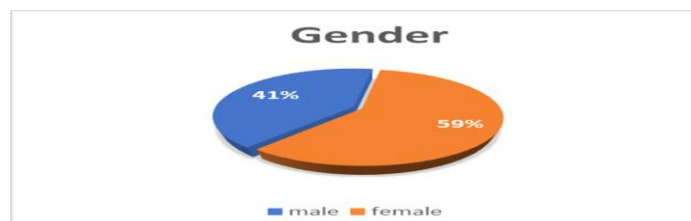
- **Q1: What is your gender?**

Table 1. sample distribution by gender

Gender	Frequency	Percentage %
Female	174	58.8
Male	122	41.2
Total	296	100%

Source: Personal construction based on our survey.

Figure1: Distribution of the sample by gender



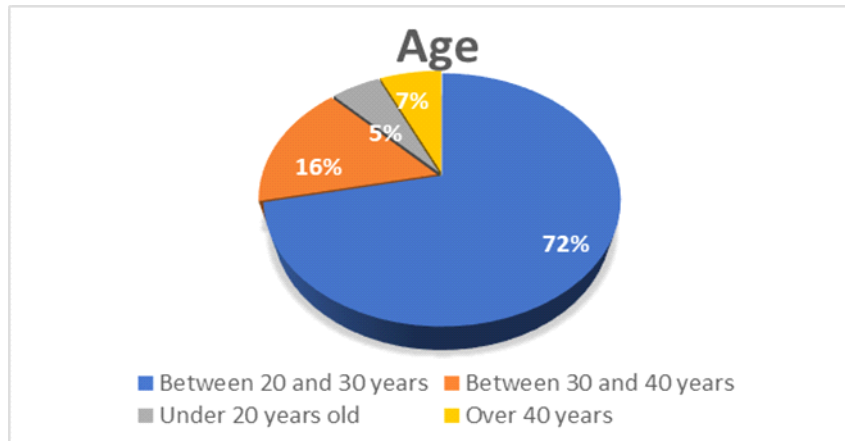
Source: Personal construction based on our survey.

## Self-Esteem, Job Satisfaction and Performance as Drivers Of Employee Engagement.....

As mentioned earlier, our sample size is 296 respondents. We note, via the descriptive statistics of the gender variable, we can see that 58,8% of the respondents are women, compared to 41,2% of men. This corresponds to 174 women and 122 men.

- **Q2: What is your age?**

**Figure 2:** Distribution of the sample according to age



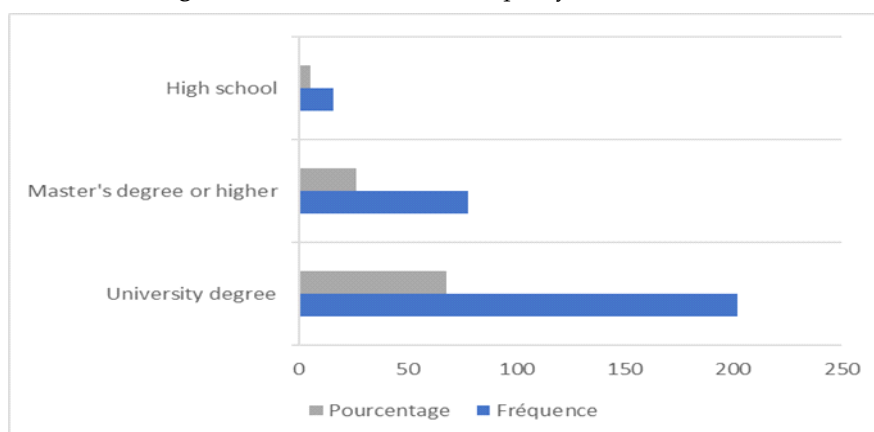
**Source:** Personal construction based on our survey.

We note that The most representative age group is between the ages of 20 and 30, with a percentage of 71.6%, followed by the ages of 30 to 40, with a percentage of 16.2%. Only 16 people under the age of 20 make up the smallest age group, accounting for 5.4% of the total. The remaining 20 people are over 40 years old, accounting for 6.8% of the population.

These primarily youthful ages are a result of how the questionnaire was delivered. Indeed, it was extensively disseminated on social media. The questionnaire was also delivered to somewhat older participants through email, but this was insufficient to achieve equal age proportions.

- **Q3: What is your level of education?**

**Figure 3:** Distribution of the sample by education level

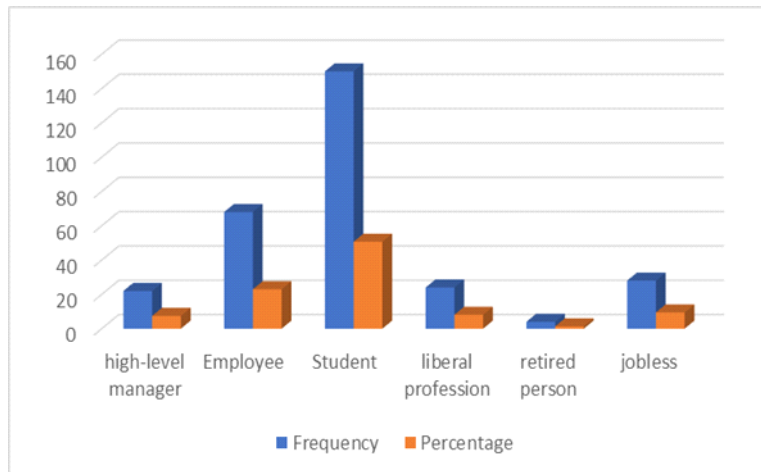


**Source:** Personal construction based on our survey.

From this figure, we can see that the most frequently answered degree is a University degree at a percentage of 68,2% than those who are graduates of Master's degree or higher with 26,4%, whereas, only 5,4% have a High school diploma.

- **Q4: What is your employment status?**

**Figure 4:** distribution of the sample by socio-professional category

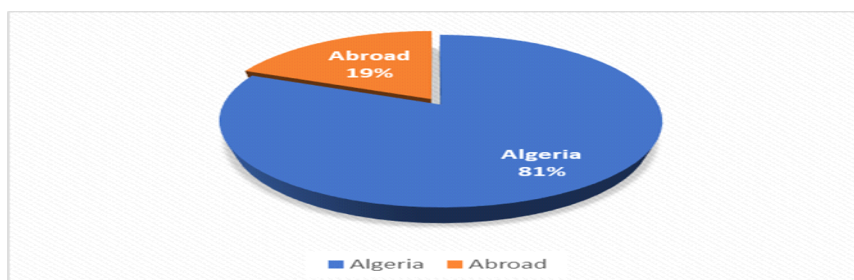


**Source:** Personal construction based on our survey.

Based on the data presented, we can observe that students make up the greatest proportion of the dataset, accounting for more than half (50.7%) of the overall population. Employees make up the next largest category, accounting for 23% of the population. High-level managers and those in liberal professions account for little more than 8% of the population, whereas the unemployed account for 9.5%. Finally, retirees are the smallest segment, accounting for only 1.4% of the population.

- **Q5: Where do you reside?**

**Figure 5:** Distribution of the sample according to place of residence



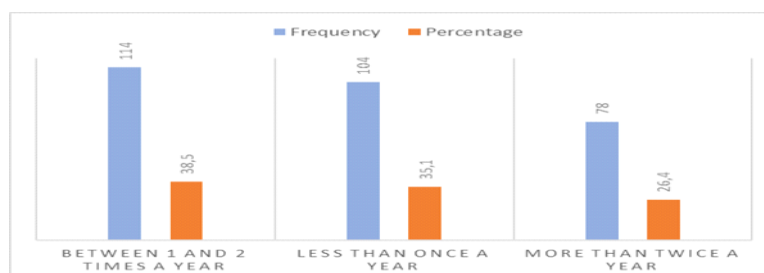
**Source:** Personal construction based on our survey.

The figure shows that the majority of participants (81.1%) are located in Algeria, while a smaller percentage (18.9%) are located abroad.

### 3.1.2 Travel Behavior

- **Q6: How many times do you travel per year?**

**Figure 6:** information about travel frequency

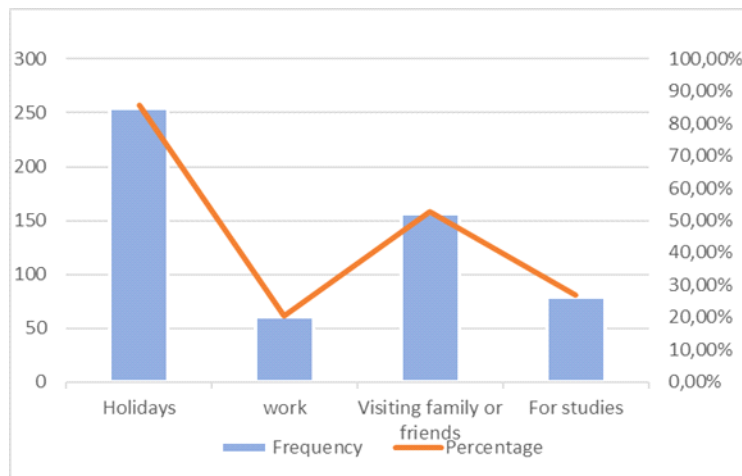


**Source:** Personal construction based on our survey

Based on the data it appears that the majority of respondents (38.5%) travel between 1 and 2 times per year, while 35.1% travel less than once a year, and 26.4% travel more than twice a year.

- Q7: For what reason(s) do you travel?

Figure 7: information about travel reasons

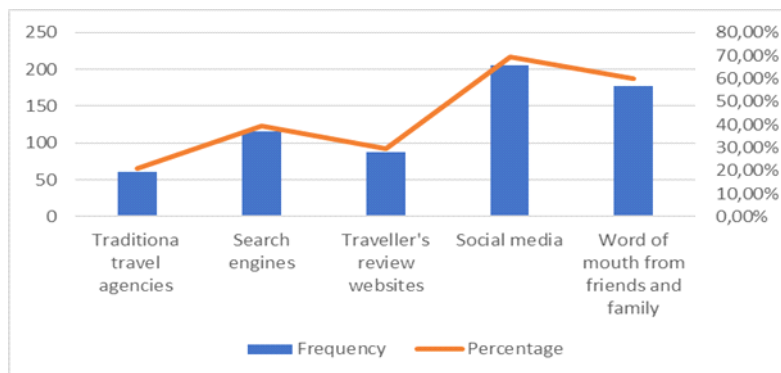


Source: Personal construction based on our survey

This data gives useful insights into why individuals travel; it appears that the majority of respondents 85.8% travel for vacations, while 52.7% travel to see family or friends, 27% travel for studies, and 20.3% travel for employment.

- Q8: What is your primary source of information for planning a trip?

Figure 8: Source of information for planning a trip

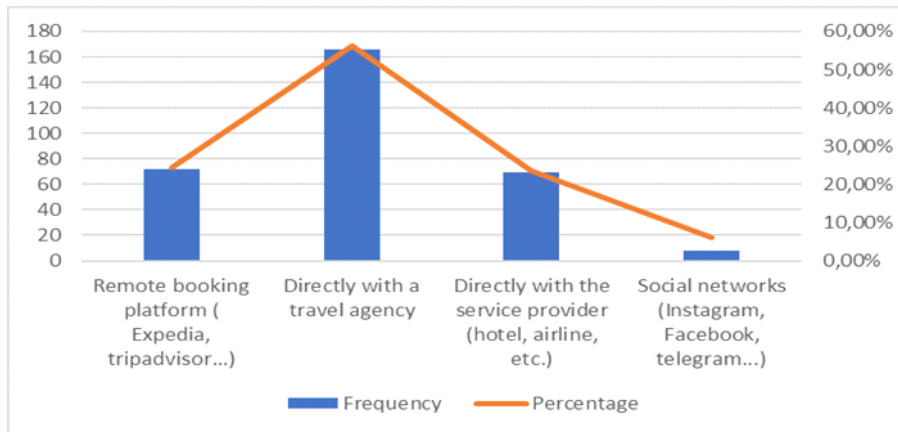


Source: Personal construction based on our survey

According to the data collected to discover potential trends or patterns in how individuals seek out and utilize travel information over time, the majority of respondents 69.6% use social media as their primary source of information for trip planning, while 60.1% depend on word of mouth from friends and family. Search engines and travel review websites were also popular sources of information, with 39.2% and 29.7% of respondents naming these as their major sources, respectively. Traditional travel agencies were the least frequently reported source of information, with only 20.9% of respondents using them for trip planning.

- Q9: How did you book your last trip?

**Figure 9:** Methods of booking people for travel

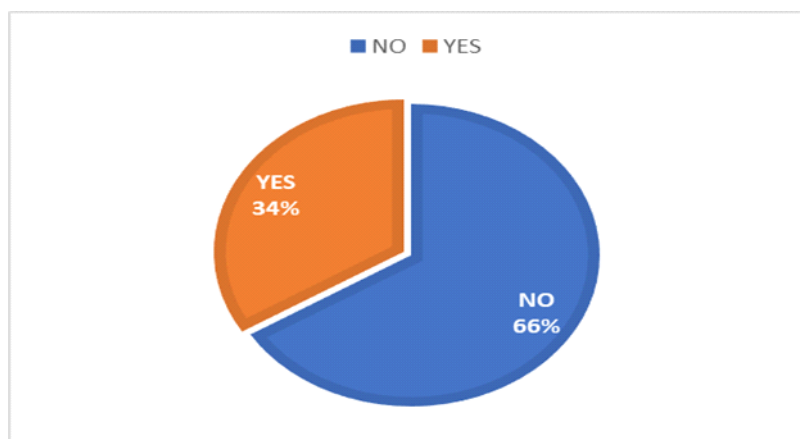


**Source:** Personal construction based on our survey

The data provides helpful insights into how people arrange their vacations. According to the data supplied, 56.1% of respondents used a travel agency to plan their most recent trip, while 23.6% used a service provider such as a hotel or airline. Only 6.1% of respondents used social media platforms like Instagram or Facebook to book their trip, while 24.3% used a remote booking platform like Expedia.

- Q10: Have you ever used a remote booking platform to plan a trip?

**Figure 10:** Use of Remote booking platforms

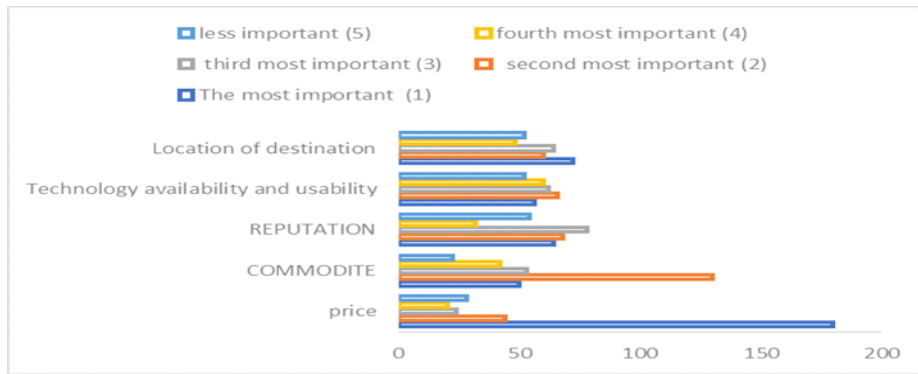


**Source:** Personal construction based on our survey

According to the research, the majority of respondents 66.2% have never utilized a remote booking tool to plan a vacation, while 33.8% have.

- Q11: What factors influence your decision when choosing a travel service provider? (rank the following factors from 1 to 5, with 1 being the most important)

**Figure 11:** factors influencing the choice of travel service providers - ranking by importance



**Source:** Personal construction based on our survey

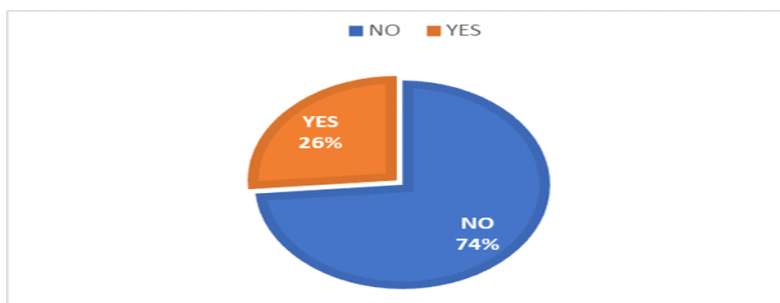
According to the statistics presented, pricing appears to be the most essential criterion when selecting a travel service provider, with 180 respondents naming it as their top priority. Convenience and location of the destination were both rated as significant by 130 and 72 respondents, respectively, as the second and fifth most important considerations.

With 78 responders, reputation was considered the third most significant consideration. The availability and usefulness of technology were considered the fourth most important, with 66 respondents naming it the second most important.

Overall, it can be concluded that when selecting a travel service provider, travelers prioritize cost and convenience, followed by reputation, technology, and destination location.

- Q12: Have you ever used a mobile application to book a trip?

**Figure 12:** Analysis of the survey based on the use of mobile applications



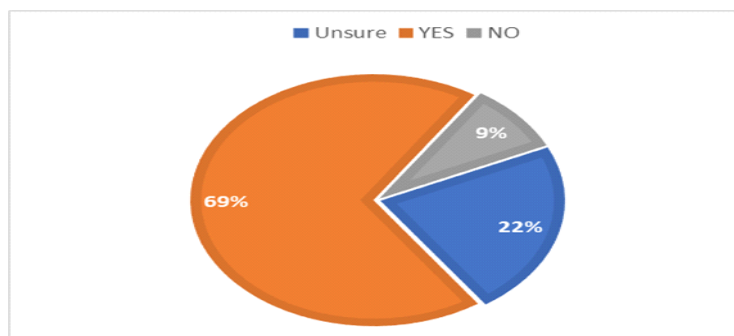
**Source:** Personal construction based on our survey

According to the statistics, 73.6% of respondents did not use a mobile app to plan their holiday, while 26.4% did.

This could mean that although mobile apps are becoming increasingly popular for booking travel, a significant number of people still prefer to use other methods for traveling.

- Q13: Would you be willing to use remote booking platforms to plan your trips in Algeria for your next trip?

**Figure 13:** Readiness to use Remote reservation Platforms for Travel in Algeria





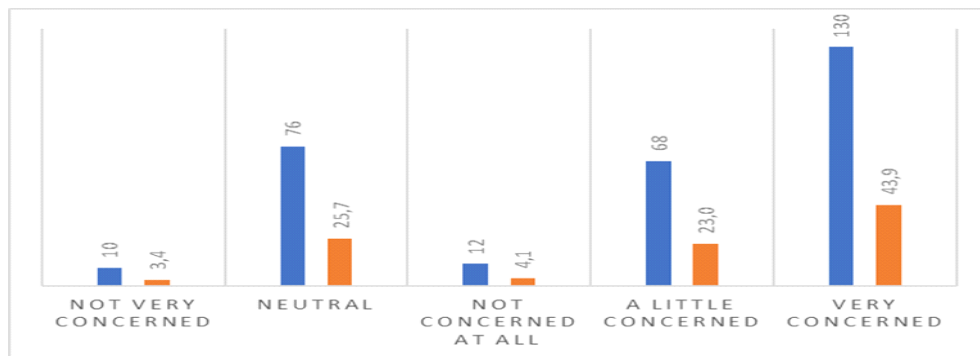
Source: Personal construction based on our survey

Only 8.8% are not prepared to use remote booking platforms to plan their trips, while the majority of respondents 68.9% are. However, a sizable proportion: 22.3% are hesitant to use such platforms for their next trip.

3.1.3 Personal data security and Technology usage

- Q14: To what extent are you concerned about the security of your personal and financial information when using remote booking platforms?

Figure 14: levels of concern regarding personal and financial information security on remote booking platforms

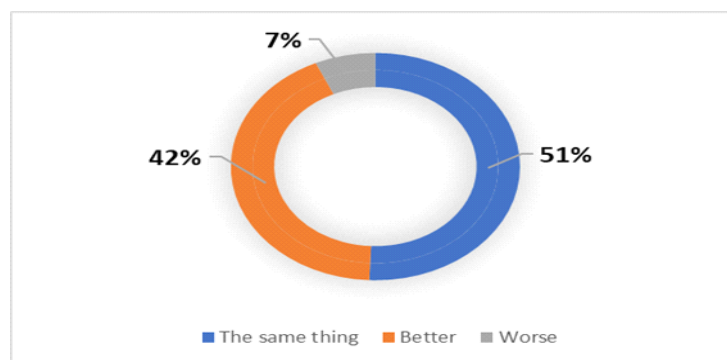


Source: Personal construction based on our survey

Respondents were asked how concerned they were about the security of their personal and financial information when using remote booking platforms. According to the results, 43.9% of the respondents were extremely concerned about the security of their information, while only 3.4% were not. 25.7% of the respondents are neutral, 23% were little concerned and 4.1% not concerned at all. This shows that a considerable proportion of users of remote booking systems are concerned about information security.

- Q15: In your opinion, do remote booking platforms offer better or worse customer service than traditional travel agencies?

Figure 15: comparison of customer service between remote booking platforms and traditional travel agencies

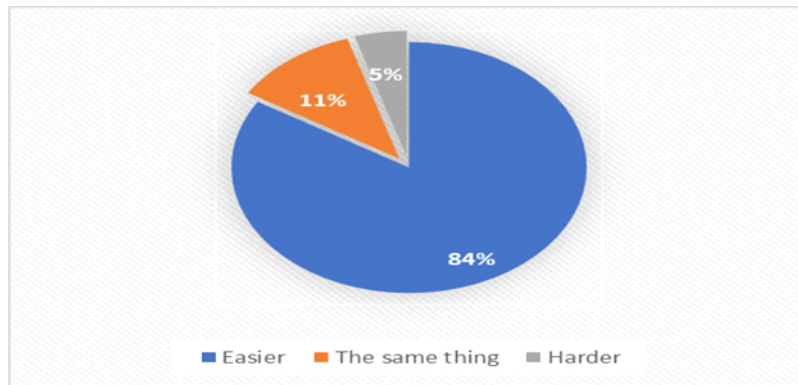


Source: Personal construction based on our survey

According to the research, half of those polled (50,7%) felt that remote booking platforms provide the same quality of service as traditional travel companies. Meanwhile, 42.6% of respondents believe that remote booking platforms provide better customer service, while only 6.8% believe that they provide worse customer service.

- Q16: Do you think the use of technology in the travel industry has made it easier or more difficult for travelers to find the best deals and make informed decisions?

**Figure 16:** technology in the travel industry enables informed decision making

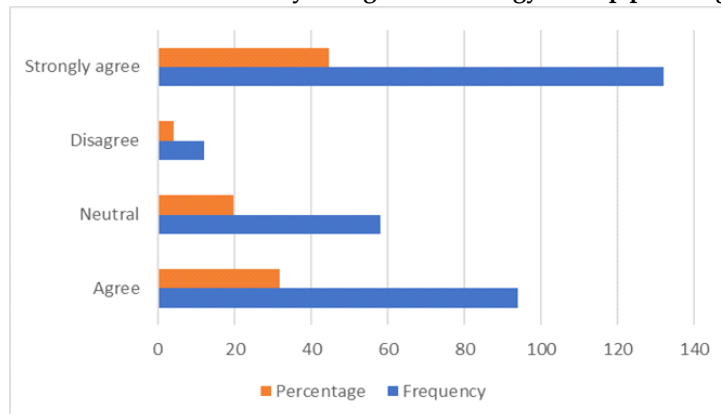


**Source:** Personal construction based on our survey

According to the statistics, 83.8 percent of respondents feel that the use of technology in the travel sector has made it simpler for passengers to locate the best offers and make educated decisions. Only a small percentage (4.7%) believe it has made things more difficult, while the remaining respondents (11.5%) believe there is no discernible difference.

- Q17: Do you think that using digital technology to plan vacations in Algeria offers more convenience and efficiency compared to traditional methods?

**Figure 17:** convenience and efficiency of digital technology for trip planning in Algeria

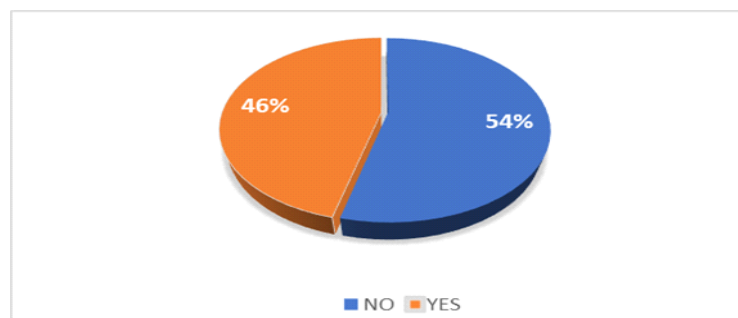


**Source:** Personal construction based on our survey

According to the survey, 31.8% of respondents agreed that using digital technology for holiday planning in Algeria offers greater ease and efficiency than conventional ways, while 44.6% strongly agreed. Only 4.1% of respondents disagreed with the statement, while 19.6% were neutral.

- Q18: Do you know what virtual reality (VR) and augmented reality (AR) are?

**Figure 18:** awareness of virtual and augmented reality technology

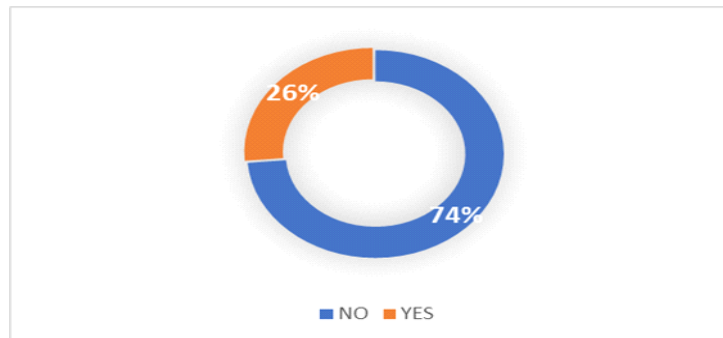


**Source:** Personal construction based on our survey

According to the research, 45.9% of those surveyed are familiar with virtual reality (VR) and augmented reality (AR), while 54.1% are not.

- Q19: Have you ever used virtual reality (VR), augmented reality (AR), or QR codes during a trip?

**Figure 19: use of virtual reality (vr), augmented reality (ar) and qr codes in travel**



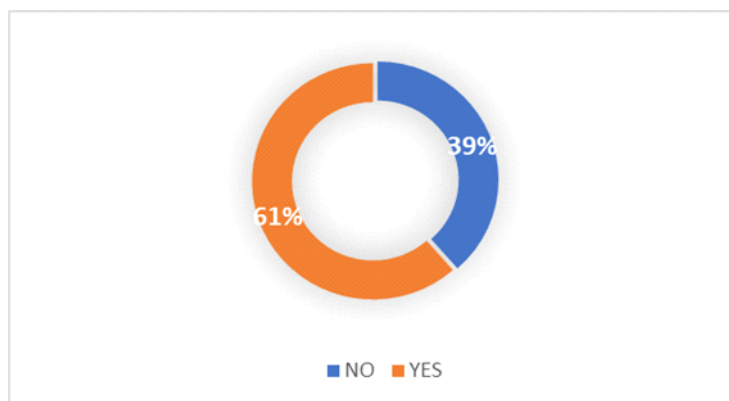
**Source:** Personal construction based on our survey

26.4% of the total respondents have used Virtual Reality (VR), Augmented Reality (AR), or QR codes, while 73.6% have not utilized any of these technologies.

### 3.1.4 The Future of Technology in the Algerian tourism sector

- Q20: Have you noticed any improvements in the Algerian tourism industry following the digital transformation?

**Figure 20: improvements in the algerian tourism industry following the digital transformation**

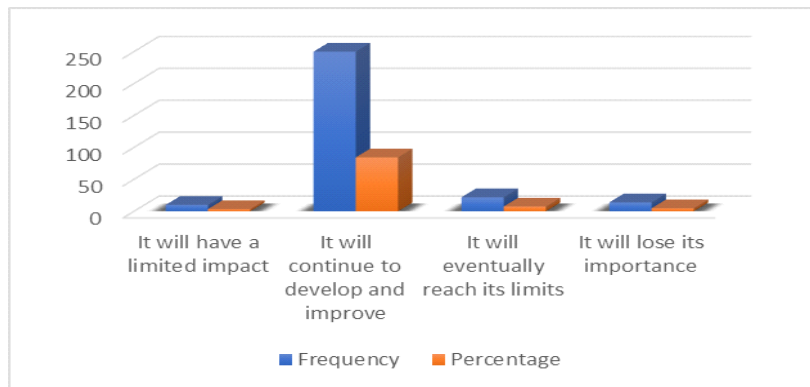


**Source:** Personal construction based on our survey

According to the data, 61.5% of respondents recognized advances in the Algerian tourist business as a result of digital transformation, while 38.5% did not. It is worth noting that the majority of respondents reported improvements, indicating that digital transformation has had a favorable influence on the sector.

- Q21: In your opinion, what is the future of technology in the tourism sector in Algeria?

**Figure 21:** Algerians' views on the future of technology in the tourism sector



**Source:** Personal construction based on our survey

The majority of respondents 84.5% anticipated that technology will continue to develop and improve in the Algerian tourist sector. A smaller proportion 7.4% said it would ultimately reach its limitations, while even fewer believed it would have a limited influence 3.4% or lose its significance 4.7%.

### 3.2 Cross-Tabulation Analyses and Hypothesis tests

After running a flat sort on all of the items in our questionnaire, we decided to further refine our results by performing a cross-tabulation analysis and Hypothesis testes to test the significance of our chosen variables, we chose a few questions that seemed relevant to the testing of our hypotheses.

#### 3.2.1 The chi-square test ( $\chi^2$ )

We used the chi-squared of independence test ( $\chi^2$ ) to analyze the relationship between two qualitative variables and determine their significance

- Test of the null hypothesis (**H0**): There is no association between the two variables.
- The alternative hypothesis (**H1**): There is a significant association between the two variables.

If the chi-square test P-value is less than the level of significance  $\alpha= 5\%$ , the null hypothesis H0 is rejected. It is concluded that the two variables have a relationship.

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To answer our main study question, we want to determine if the use of various technologies in the Algerian tourism industry is related to various factors such as age, education level, personal and financial data protection, and their improvements in the Algerian tourism industry.

- Visitors' awareness of many new technologies, such as virtual and augmented reality, is related to their age and there education level.
- The level of concern about personal and financial security influences travellers' willingness to use remote booking platforms in Algeria,
- The levels of concern regarding personal and financial information security are one of the reasons for the traditional booking methods,
- Does the use of digital technologies such as virtual reality, augmented reality, and mobile applications have an impact on the perception of improvements in the Algerian tourism industry? ,
  - **Analysis:**
- What is your age?
- Do you know what virtual reality (VR) and augmented reality (AR) are?

**Table 2: cross-tabulation of variables age and variable knowledge of AR and VR technologies**

			18. Do you know what virtual reality (VR) and augmented reality (AR) are?		Total
			YES	NO	
What is your age?	Under 20 yearsold	Count	2	14	16
		% within What is your age?	12,5%	87,5%	100,0%
	Between 20 and 30 years	Count	110	102	212
		% within What is your age?	51,9%	48,1%	100,0%
	Between 30 and 40 years	Count	18	30	48
		% within What is your age?	37,5%	62,5%	100,0%
	Over 40 years	Count	6	14	20
		% within What is your age?	30,0%	70,0%	100,0%
Total		Count	136	160	296
		% within What is your age?	45,9%	54,1%	100,0%

Source: Generated by the SPSS software

According to the table data, the age group most familiar with technologies such as AR and VR are those between 20 and 30 years old.

**Table 3: Chi-Square Tests Q18 \* Q2**

	Value	Df	Asymptotic Significance (2-sided)
<b>Pearson Chi-Square</b>	<b>13,646<sup>a</sup></b>	<b>3</b>	<b>,003</b>
<b>Likelihood Ratio</b>	<b>14,801</b>	<b>3</b>	<b>,002</b>
<b>Linear-by-Linear Association</b>	<b>,819</b>	<b>1</b>	<b>,365</b>
<b>N of Valid Cases</b>	<b>296</b>		

Source: Generated by the SPSS software

The results of the Chi-square  $\chi^2$  test show that the p-value is equal to 0.003 and less than the alpha level (0.05), which allows us to accept the alternative hypothesis (H1) indicating there is a significant association between these two variables Age and familiarity with VR and AR.

- **Would you be willing to use remote booking platforms to organize your trips to Algeria on your next trip?**
- **How concerned are you about the security of your personal and financial information when using remote booking platforms**

**Table 4:** Chi-Square Tests Q13 \* Q14

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30,891 <sup>a</sup>	8	,000
Likelihood Ratio	29,705	8	,000
Linear-by-Linear Association	22,752	1	,000
N of Valid Cases	296		

Source: Generated by the SPSS software

The results of the Chi-square  $\chi^2$  test show that the p-value is equal to 0 and less than the alpha level (0.05), which allows us to accept the alternative hypothesis (H1) indicating there is a significant relationship between personal and financial security and Willingness to use remote booking platforms in Algeria.

- **To what extent are you concerned about the security of your personal and financial information when using remote booking platforms?**
- **How did you book your last trip?**

**Table 5:** Chi-Square Tests Q9 \* Q14

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	68,166 <sup>a</sup>	24	,000
Likelihood Ratio	69,963	24	,000
Linear-by-Linear Association	,948	1	,330
N of Valid Cases	294	•	•

Source: Generated by the SPSS software

The table shows that there are statistically significant differences between tourists' personal and financial security and the method of booking with a significance value of 0 less than 0.05 which rejects the null hypothesis (H0) and accepts (H1).

### 2.2.2 Contingency Coefficient

Also known as Cramer's V, is a measure of the degree of association between two variables. It ranges from 0 to 1, where 0 indicates no association and 1 indicates a perfect association.

**Table 6 :** Contingency coefficient

		Value	Approximate Significance
Nominal by Nominal	Contingency Coefficient	,434	,000

N of Valid Cases	294	•
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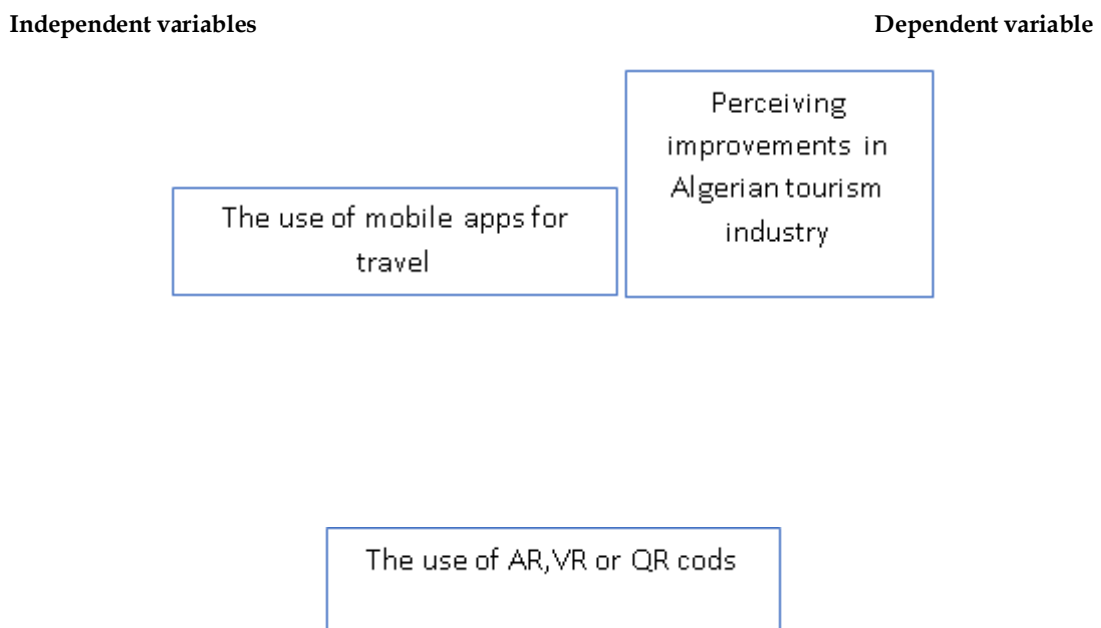
Source: Generated by the SPSS software

The contingency coefficient equals 0.434, it suggests that there is a moderate strength of association between our two categorical variables.

- Have you noticed any improvements in the Algerian tourism industry as a result of digital transformation?
- Have you ever used a mobile application to book a trip?
- Have you ever used virtual reality (VR), augmented reality (AR) or QR codes when travelling?

### 2.2.3 Logistic Regression

Figure 22: the Model for our research



Source: Developed by us

### 2.3 Definition

"LR" is a powerful statistical method for analyzing categorical data and is used to predict the probability of a nominal response, The regression applies when Y is a quantitative variable more specifically dichotomous, and X is a quantitative or qualitative variable. which employs regression models with alternative dependent variable as follows:

$$Y = b_0 + b_1X_1 + b_2X_2$$

where Y = 0 when the individuals respond with 'NO' and Y = 1 when the individuals respond with a 'YES' (perceiving improvements in the tourism industry).

The logistic regression equation:

$$\log \left( \frac{p}{1-p} \right) = b_0 + b_1X_1 + b_2X_2 + \epsilon$$

p: probability of perceiving improvements in the tourism industry,

p/(1-p): Odds ratio

**X1,2:** independent variables,

**b0:** constant,

**b1,2:** weighting coefficients

**ε:** error.

**p/(1-p):** Odds ratio,

By conducting the logistic regression analysis we can determine whether these technologies have a statistically significant impact on the likelihood of perceiving improvements in the tourism industry.

2.3.1 Results

Table 7 : Model fitting

		Chi-square	Df	Sig.
Step 1	Step	10,115	2	,006
	Block	10,115	2	,006
	Model 1	10,115	2	,006

Source: Generated by the SPSS software

The result shows that the p-value of overall model is less than 5%, indicating that there is at least one predictor variables is statistically significant, the independent variable has a significant effect on the dependent variable. Indicating that the use of digital technologies may have an impact on perceptions of improvements in the Algerian tourism industry.

Table 8: Detailed estimates from the LR model

		<b>β</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>	<b>95% C.I. for EXP(B)</b>	
								<b>Lower</b>	<b>Upper</b>
Step 1 <sup>a</sup>	<b>Mobile app usage (1)</b>	,456	,297	2,353	1	,125	,634	,354	<b>1,135</b>
	<b>AV, VR, QR code usage</b>	,675	,302	4,989	1	,026*	,509	,282	<b>,921</b>
<b>Constant</b>		1,323	,315	17,668	1	,000	3,754		



\* Statistically significant individual predictors at  $\alpha = 0.05$  (considering p-value  $< \alpha$ )

**Source:** Generated by the SPSS software

Table (8) provides more detailed information about the individual predictor variables in the logistic regression mode. The results demonstrate that just one of the predictor factors (variable 19) is statistically significant at the 5% level, while the other one (variable 12) is not.

A positive coefficient value indicates for every one-unit increase in the use of virtual, augmented reality, or QR we expect a 1,964 increase in the log odds of perceiving improvements in the tourism industry.

### **2.3.2. Synthesis and discussion of the results**

Based on the results obtained from our survey, the results provide valuable insights into travel behavior and technology usage among Algerian travelers. The sample size comprised 59% female and 41% male respondents, with the most representative age group being between 20 to 30 years old, making up 72% of the sample size. Furthermore, 81% of the respondents were based in Algeria, with the remainder being from abroad.

In terms of travel behavior, the majority of respondents 38% reported traveling between 1 to 2 times per year, with the most common reason for traveling being for vacations 86%, followed by visiting family or friends 53%. It is noteworthy to observe that a significant proportion of Algerian travelers rely on various technological platforms such as social media 70%, as primarily informational resources, to obtain destination-specific insights and peruse travel-related feedback.

The most important factors for selecting a travel service provider were cost and convenience, followed by reputation, technology, and destination location.

Regardless of the increasing reliance on technology for obtaining travel-related information, a significant majority of the respondents expressed a preference for traditional methods booking their next trip. Specifically, 66% of the participants had never used remote booking tools and 74% had never used mobile applications to plan a vacation. Furthermore, a majority of the survey respondents 54% demonstrated a lack of familiarity with augmented reality AR and virtual reality VR technologies, with 73% having never utilized either of these emerging technologies for travel purposes.

The study also underscores the importance of data security and its relationship with the willingness to use remote booking platforms in Algeria. These findings have far-reaching implications for the future of Algeria's tourist sector, which might be fueled by technology to spur growth and development. According to the findings of the logistic regression study, the use of such technology is connected with a higher likelihood of seeing advances in the e-tourism industry. This implies that digital technology may be used to improve industry performance. Furthermore, 84% of respondents expressed optimism about the continuous integration of technology in the Algerian tourism industry, emphasizing technology's potential to improve the industry's prospects.

## **IV. Conclusion and Recommendations**

This article is focused on the empirical aspect of the research. The obtained results have been presented and analyzed in this chapter, which is essentially divided into two parts.

The first part of this study is dedicated to exploring the behavior of tourists in Algeria and their utilization of technology. The data was collected through a questionnaire administered to both national and international tourists. The research findings indicate that the use of technology in Algeria is limited to gathering and collecting information about the destination. When it comes to taking action, traditional methods are preferred by the tourists.

Furthermore, the study identifies concerns regarding personal and financial information security as a significant reason for the preference for traditional booking methods, which indicates that the fear of cybersecurity risks and data breaches is a significant factor in the preference for traditional methods.

However, service providers are facing several challenges such as keeping up with technological advancements, high costs, and the lack of technological infrastructure. Despite these impediments, tourism service providers in Algeria remain optimistic about the potential of technology to shape the industry's future.

## REFERENCES

### Ouvrages:

- [1.] Aquino, E. Phillips, R. and Sung, H. (2012) Tourism, Culture, and the Creative Industries: Reviving Distressed Neighborhoods with Arts-Based Community Tourism. Source: Tourism Culture & Communication, Volume 12, Number 1, 2012 , pp. 5-18.
- [2.] Ayu Lucky and Sriyono (2014) Implementation of creative economy to improve performance based tourism. The 3rd International Conference on Business and Banking (ICBB 2014) Pattaya, Thailand-February 5-7, 2014. ISBN: 978-602963193-7
- [3.] Ball, M. (2023). The metaverse et comment il va tout révolutionner.
- [4.] Bakas, Fiona Eva, Nancy Duxbury, Tiago Vinagre de Castro, (2018) "Creative tourism: catalysing artisan entrepreneur networks in rural Portugal", International Journal of Entrepreneurial Behavior & Research, <https://doi.org/10.1108/IJEBR-03-2018-0177>
- [5.] DUMAS, Guillaume- LAFOURCADE, Pascal- ROUDEIX, Etienne- TICHIT, Ariane-VARRETTE, Sébastien. (2022). *Les NFT en 40 questions*. Malakoff:Dunod.
- [6.] KOTLER, K. M. (s.d.). *Op.cit.* (éd. OP.cit.). Consulté le 01 03, 2023
- [7.] N.Lemon, K. (28 Oct 2016). The Art of Creating Attractive Consumer Experiences at the Right Time. Volume 8 (2016) - Issue 2 (November 2016) - Marketing and Data Science.
- [8.] LGiannellion et E. Vernet « étude de marché », édition Vuibert, France Mai 2015. ED°4 p312.
- [9.] Radolf, J. (2021, May 7). *Evolution de la creator economie*.
- [10.] Stephenson, N. (1992). Snow crash. united states.
- [11.] Wisudthiluck, S. and Sangsnit, N. (2013) Buddhist Votive Tablets as Cultural Heritage in Tourism: a Challenge and Opportunity in Creative Tourism of Thailand. DASTA, Thailand.
- [12.] Zegers K., COLIN's creative tourism experiences: The opportunities for the province of Noord-Brabant, The Netherlands. pp 139 - 141, Journal of Tourism Consumption and practice, Special Issue on Creative Tourism, Volume 4 A case study of creative tourism development in the Netherlands.
- ZENG Qi jie, LV Li, LU Lin, ZHU Fu biao. An Analysis on the Demand for Cultural Creative Tourism and Its Differences [WT] – – Taking Shanghai World Expo as An Example. TOURISM TRIBUNE, 2012, 27(5): 103-108.

### Source Webographiques:

- [13.] <https://medium.com/building-the-metaverse/building-the-metaverse-megadeck-7fc052cfe748>
- [14.] <https://www.antiersolutions.com/wp-content/uploads/2022/10/Layers.jpg>.
- [15.] [https://www.statista.com/statistics/1098630/global-mobile-augmented-reality-ar-users/\(2021\)](https://www.statista.com/statistics/1098630/global-mobile-augmented-reality-ar-users/(2021)).
- [16.] <https://digitad.ca/metaverse-marketing>.
- [17.] <https://nordvpn.com/fr/blog/quest-ce-que-le-metaverse/>
- [18.] [https://morethandigital.info/fr/le-metaverse-explique-definition-introduction-et-exemples/#Evolution\\_du\\_Web\\_10\\_du\\_Web\\_20\\_au\\_Web\\_30\\_et\\_au\\_Metaverse](https://morethandigital.info/fr/le-metaverse-explique-definition-introduction-et-exemples/#Evolution_du_Web_10_du_Web_20_au_Web_30_et_au_Metaverse).
- [19.] <https://www.webmarketing-com.com/2021/12/17/1694903-metaverse-et-marketing-digital-vers-creation-experiences-marque>.
- [20.] <https://exarta.com/blog/what-is-the-metaverse/>.