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Intention to use **augmented reality** in tourism: exploring the mediator relation of **hedonic motivation**

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Abstract | Tourism service providers have begun using augmented reality (AR) technologies to enrich tourists' experiences and connect them with their brands. Due to the fun and enjoyment associated with the use of the technology, hedonic motivation plays an important role in intention to use AR. Therefore, the aim of this paper is to investigate the determinants of intention to use AR in a tourism context, given the mediating role of hedonic motivation. Primary research was conducted based on an online questionnaire developed from previous research and adapted for the objectives of this paper. The collected data were empirically tested and validated through partial least squares structural equation modelling (PLS-SEM). The results suggest that the effect of Technology readiness on Intention to use AR is not mediated by Hedonic motivation, nor is the relationship between Perceived ease of use and Intention to use AR. On the other hand, Perceived usefulness has a significant positive effect both on Intention to use AR and on Hedonic motivation. The indirect relationship between Perceived usefulness and Intention to use AR is mediated by Hedonic motivation.

Keywords | Augmented reality, intention to use, hedonic motivation, tourism

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1. Introduction

Augmented reality (AR) refers to technology that "supplements the real world with virtual (computer-generated) objects that appear to coexist in the same space as the real world" (Azuma et al., 2001, pp. 34). The tourism market and its trends depend largely on the availability of information, and new technologies play an important role in this. AR technology enables the provision of detailed information to tourists, enhances the tourist experience (Ali, 2022), and provides a high level of entertainment before, during, and after the stay at the destination (Gharaibeh, 2021). To enrich the tourist experience, service providers are showing a growing interest in implementing AR technologies in destinations (Shin & Jeong, 2021; Signoretti et al., 2014).

In a tourism context, previous studies have focused on exploring the characteristics and properties of AR technology (Shin & Jeong, 2021; Ali, 2022), mostly in the context of different technology acceptance models and behavioural intentions (Haugstvedt and Krogstie, 2012; Chung et al., 2015; Homayounvala & Pourmehr, 2015; Jung et al., 2018; Lacka, 2018; Gharaibeh et al., 2021; Shin & Jeong, 2021). Shin and Jeong (2021) and Gharaibeh et al. (2021) emphasise that a number of scholars have highlighted the importance of AR in the tourism industry and studied the key AR features that affect consumers' behavioural intentions. The application of AR technology, however, has not been widely studied. In particular, the number of relevant empirical studies that address the motivational aspects of consumers' use of AR technologies is limited. Most of the existing studies in a tourism and hospitality context mainly examine the utilitarian components of AR, and few attempts have been made regarding the hedonic motivations of AR (Jung et al., 2018; Lacka, 2018; Gharaibeh et al., 2021; Shin & Jeong, 2021). Hedonic motivation has been explored as an antecedent of perceived effort and benefit of technology use (Gursoy at al., 2019), as well as a significant mediator in the context of mobile taxi booking apps (Siyal et al., 2020), e-banking (Salimon et al., 2017) and mobile learning (Sitar-Tăut, 2021). Given that tourism products and services are always experiential and considering the fun and playfulness enabled by AR technology, it is important to investigate hedonic motivation as a crucial component of AR. Indeed, the pleasure that AR technologies provide to tourists leads to their positive attitude and future intention to use them (Shin & Jeong, 2021). Therefore, the aim of this paper is to investigate the determinants of intention to use AR in a tourism context by considering hedonic motivation as a mediator.

The paper is organized into six parts. After the introduction, the second part gives an overview of the previous research. In the third part, based on the literature review, a conceptual model is presented and hypotheses are formulated. Next, the research methodology is explained, followed by the interpretation of the research results. In the last part, the research results and limitations are discussed and recommendations for future research are given.

2. Theoretical framework

Augmented reality technology gives marketers the ability to offer users a realistic experience of a product, service or place without being physically present at a specific location. In addition, augmented reality technologies generate added value in terms of the tourist experience, provide the possibility of learning in the destination, and the possibility of entertainment and connection, and contribute to improve profit for companies (Cranmer et al., 2017). Nayyar et al. (2018) highlighted several key areas in tourism where the application of augmented reality technology can lead to the creation of a potentially better tourist experience,

namely: planning, entertainment and education, virtual local attractions, restaurants, translation, navigation, booking and researching accommodation, marketing and hotel management.

Scientific interest in research on the application of augmented reality technology in tourism began to grow at the beginning of the 21st century. As scientists began to realize the importance of this technology in the future of tourism, more and more papers were published on this topic. Table 1 provides a chronological presentation of the most important studies from 2012 to 2021 which in the title and/or keywords have AR and tourism.

As seen in Table 1, most of the studies focus on the creation of smart destinations, the use of AR in cultural tourism, and the behaviour of tourists in a virtual environment. Special attention is paid to models of acceptance of AR technology as well as its implementation. Studies on the implementation and acceptance of AR technology in the hotel and restaurant industry, however, are still few (Ali, 2022). Nevertheless, the application of AR in tourism is increasingly present, especially due to the diversity and characteristics of the tourism offering.

One of the most commonly used models in the context of technology use is the Technology Acceptance Model (TAM). It is based on the relationship between belief-attitude-intention-behaviour and can predict the user's acceptance of technology in everyday life (Lederer et al., 2000). In addition, the perceived usefulness obtained from the use of technology as well as the ease of use play a major role in its acceptance by users (Jingen Liang & Elliot, 2021). One of the most comprehensive and recognized models for conducting technology acceptance research, which evolved from the UTAUT model, is the UTAUT 2 model, which includes the following variables: hedonic motivation, price value, and habit (Calderón-Fajardo et al., 2022). As the most effective model for predicting technology acceptance (Syial et al. 2020), the Unified Theory of Acceptance and Use of Technology (UTAUT) was developed primarily with the goal of examining behavioural intentions to use technology in an organizational context (Venkatesh et al., 2003), and numerous studies applied this model in organizational and nonorganizational contexts. A few years later, Venkatesh et al. (2012) developed an extended UTAUT model, called UTAUT2, by introducing new constructs into the existing model and adapting it to the context of consumer use. In addition to the above constructs included in the UTAUT2 model, one of the most important is hedonic motivation, as previous research has presented hedonic motivation as a fundamental predictor of consumer behaviour (Holbrook and Hirschman, 1982; van der Heijden, 2004; Holbrook 2006).

According to motivational theory, consumer behaviour (in accepting new products or services) can be explained by external motivation, which has a utilitarian purpose (e.g., reward), and internal motivation, which is driven by hedonic motives (e.g., pleasure and satisfaction) (Jung et al., 2017). Hedonic motivation, described as "the extent to which the use of a technology is perceived as enjoyable and fun" (Kalantari & Rauschnabel, 2018, pp. 235), plays an important role in increasing the intention to adopt a new technology (Gharaibeh et al., 2021; Shin & Jeong, 2021). Moreover, previous studies have shown that hedonic motivation is a stronger predictor of new technology adoption than utilitarian motivation (van der Heijden, 2004; Kim & Forsythe, 2007; Lacka, 2018). It entails entertainment and experiential benefits when using technology (Trivedi, 2022). Feelings such as fun, education, enjoyment and comfort, as intrinsic motivation, are regularly associated with tourism activities and significantly encourage consumers to accept and use innovative technologies (Syal et al., 2020), especially in tourism. Kim and Hall (2019) point to the exponential growth in the use of VR technologies for tourism purposes due to hedonic motivations and, in particular, pleasure, happiness, and enjoyment. In addition, Tussyadiah

Table 1 | Overview of research on augmented reality in tourism

Authors	Paper's relevance
Kounavis et al. (2012)	This research evaluates the implementation of augmented reality technology in tourism. The main features are the way information is presented, and the social interaction and innovative experience of tourists.
Olsson et al. (2012)	The study focuses on user acceptance of five different mobile AR scenarios. The results show that respondents prefer AR, especially the group that is inclined to use technology and finds it easy to navigate.
Olsson et al. (2013)	The paper presents the results of a survey in which participants were asked about MAR (mobile augmented reality) technology. The study showed that MAR promotes environmental awareness, reveals new and interesting features of the technology, and provides users with a pleasant tourist experience.
Leue et al. (2014)	The paper proposes a model of augmented reality technology acceptance consisting of five variables (enjoyment, perceived usefulness, personal innovativeness, information quality, and cost of use), to be used to measure augmented reality usage behaviour.
Dueholm and Smed (2014)	One of the first studies to examine the use of augmented reality in a heritage site. The authors examined managerial attitudes toward implementing AR technology, including financial resources and the time and knowledge required to implement the technology.
Jung et al. (2015)	The research found that user satisfaction with the augmented reality experience and the likelihood of recommending it to others increased when content could be personalized. In addition, innovation proved to be one of the key elements for the user and the creation of the aforementioned connection.
Chung et al. (2015)	This research shows how variables such as technology readiness, the visual appearance of the 3D elements of the virtual image, and a number of situational factors influence the perceived ease of use of augmented reality technology.
Homayounvala and Pourmehr (2015)	This study points out that perceived usefulness and perceived ease of use are key factors in the adoption of augmented reality technology and form the basis for future intention to use AR technology. The study lays the groundwork for developers and designers of AR technology.
Javornik (2016)	The study suggests that perceived satisfaction with the virtual part of the technology determines the user's overall satisfaction with AR technology. It was also found that the use of the technology does not increase interactivity between users.
Mesároš et al. (2016)	This research addresses the benefits of using augmented reality and creating AR games in a destination. The focus is on creating a story and learning from it while in the destination.
tom Dieck and Jung (2017)	The study highlights the economic, social, cultural, historical, and educational value that augmented reality technology generates for a destination. It is emphasized that AR is an innovation that presents cultural monuments in an innovative way, creating a positive tourist experience and an entertaining way of learning about the destination.
Han et al. (2018)	The research results show that in the context of urban cultural tourism, the perceived experience of mobile augmented reality is influenced by tourists and their expectations. It is also highlighted that the use of this technology in tourism is still limited.
He et al. (2018)	The study concludes that museum visitors are more willing to spend more money if they are offered viewing of art and historical objects with an additional AR experience.
Jung et al. (2019)	The goal of this research was to examine how short- and long-term cultural orientations influence the creation of augmented reality experiences and the value perceived by users.
Cranmer et al. (2020)	This article explores the perceived value of augmented reality by tourism professionals. The surveyed participants identified five important dimensions, including marketing, business, tourists, knowledge, and organization. The results are important for strategic tourism planning, augmented reality technology implementation, and tourism experience design.
Wu et al. (2020)	The research was conducted at tourism exhibitions to determine the relationship between technology acceptance, consumer attitudes, and intention to use AR technology.
Mohanty et al. (2020)	The authors conclude that during and after the global pandemic, social distancing and limited mobility will persist for some time. Augmented reality offers a conceptual solution for creating unique and memorable tourism experiences in such situations.
Gharaibeh et al. (2021)	The results show that the intention to use AR technology among tourists depends on the expectations that a person has about this technology, as well as on the aesthetic appearance of the virtual features. Factors such as environmental impact, device condition, and price were also found to influence future intention to use.
Jingen Liang and Elliot (2021)	The research reveals five emerging research clusters: (1) AR design and development; (2) user acceptance of AR; (3) user experience, satisfaction, and behavioural intentions; (4) AR implementation and management, and (5) gamification and AR. The dominant cluster focuses on user acceptance of augmented reality, via the technology acceptance model.
Shin and Jeong (2021)	In determining travellers' motivational factors for using AR applications at destinations, this study found that hedonic and utilitarian motivations significantly influenced travellers' attitudes towards AR applications at destinations.

Source: Adapted from Čekić (2021)

et al. (2018) emphasize the importance of hedonic experience in the VR tourism context, as a significant effect of enjoyment of VR technology on the intention to visit a destination was found. In the tourism context, Laka (2018) identified hedonic motivation as a fundamental push factor for using location-based AR games. When playing these games, people have fun and enjoy, and feel pleased. Thus by arousing these feelings through AR technology, additional benefits and higher user satisfaction are achieved after use (Shin & Jeong, 2021).

3. Hypotheses development

Lin and Chang (2011) found that technology readiness increases the intention to use self-service technologies. In addition, Chung et al. (2015) pointed out that tourists with higher technology readiness are more likely to accept and adopt the use of AR technologies in tourism, as they are more willing to adopt new technologies and more open to their use in daily life. Consequently, the following hypotheses are made:

H_1: There is a statistically significant and positive relationship between technology readiness and intention to use AR.

H_2: There is a statistically significant and positive relationship between technology readiness and hedonic motivation.

Perceived usefulness and perceived ease of use are a core construct in demonstrating technology acceptance in general (Jingen Liang & Elliot, 2021). The perceived ease of use has a direct or indirect influence on intention to use new technologies in different environments (Kalantari & Rauschnabel, 2018). By exploring the above construct, destinations and designers of AR technologies can gain better insight into, and control over, user intentions and expectations (Homayounvala & Pourmehr, 2015). Furthermore, in their study, Gharaibeh et al. (2021) provide evidence that intentions for future use of AR technology are strongly influenced by users' perceived ease of use (i.e., effort expectation). Based on the above, the following hypotheses were formulated:

H_3: There is a statistically significant and positive relationship between perceived ease of use and intention to use AR.

H_4: There is a statistically significant and positive relationship between perceived ease of use and hedonic motivation.

When investigating the influence of intrinsic and extrinsic motivation on usage intentions, Lacka (2018) found that only hedonic motivation influenced users' intentions to use AR games. In addition, Jung et al. (2018) found a positive relationship between hedonic motivation (i.e., perceived pleasure) and intentions to use AR mobile applications in heritage sites. Shin and Jeong (2021) found that hedonic motivation is a significant predictor of travellers' future intention to use AR applications. Perceived usefulness refers to "the extent a user believes that a technology enhances the performance of a task, e.g., game progression or completion" (Lacka, 2018, pp. 6). According to Gharaibeh et al. (2021), expected usefulness will have an even greater impact on intentions to use if users consider it a facilitating factor in performing a job or activity. In a tourism setting, Chung et al. (2015) found that perceived usefulness is a significant predictor of tourists' intention to use AR applications at heritage sites. Moreover, Gharaibeh et al. (2021) revealed a positive relationship between perceived usefulness (i.e., performance expectancy) and intention to use mobile AR in tourism. Based on the above, the following hypotheses were formulated:

H_5: There is a statistically significant and posi-

tive relationship between perceived usefulness and intention to use AR.

H_6: There is a statistically significant and positive relationship between perceived usefulness and hedonic motivation.

H_7: There is a statistically significant and positive relationship between hedonic motivation and intention to use AR.

The mediating role of hedonic motivation was previously investigated for the adoption of mobile taxi booking apps, e-banking and mobile learning. As found by Taut (2021), perceived expectancy, social influence, behavioural intention, and facilitating conditions are complementarily mediated by hedonic motivation. Salimon et al. (2017) found that, with the mediation of hedonic motivation, there is a significant relationship between perceived usefulness, security and e-banking. Finally, Siyal et al. (2020) proved that the main factors of UTAUT are strongly mediated by hedonic motivation. Accordingly, the following hypotheses are formulated:

H_8: Hedonic motivation mediates the relationship between technology readiness and intention to use AR.

H_9: Hedonic motivation mediates the relationship between perceived ease of use and intention to use AR.

H_{10}: Hedonic motivation mediates the relationship between perceived usefulness and intention to use AR.

Further to the above hypotheses, a conceptual model is proposed (Figure 1).

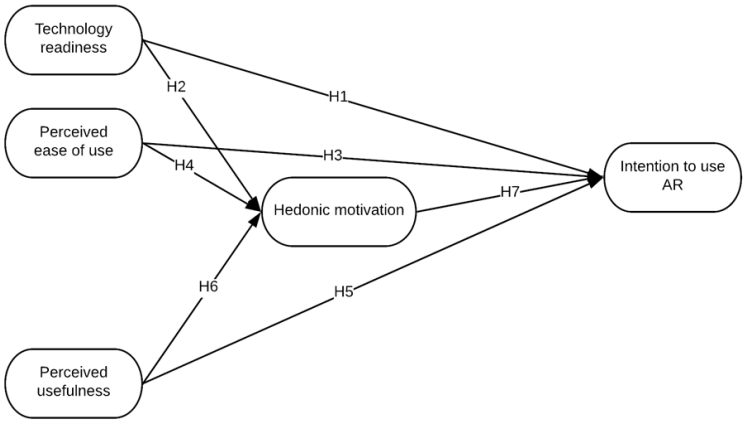

Figure 1 | The conceptual model
Source: Own elaboration

4. Methods

Empirical research was conducted using the survey method on a convenience sample of Croatian tourists over the age of 18, during summer months 2021. In order to ensure replicability and validity of the collected data, the sample of Croatian tourist was chosen because is considered a one of the most developed destinations in the Mediterranean (Šerić et al., 2016) and a fast-growing and popular summer destination in the European Mediterranean (Mikulić et al., 2018). A three-part questionnaire was designed to collect data. The first part consisted of a screening question asked whether respondents had used a tourism service in the last 12 months, as well as questions that provide insight into their use of AR technology. The second part contained statements taken from the previous literature. Technology readiness was measured using statements adapted from Chung

et al. (2015). Statements adapted from Homayounvala and Pourmehr (2015) were used to measure the respondents' perception of usefulness and perception of ease of use. Hedonic motivation was measured using statements from Gharaibeh et al. (2021). Finally, intention to use AR for travel purposes was adopted from Homayounvala and Pourmehr (2015). Respondents rated their agreement with the statements on a 5-point Likert scale, ranging from 1 "strongly disagree"to 5 "strongly agree". The third part of the questionnaire investigated the respondents' socio-demographic characteristics.

According to the "10-times rule" method for estimating minimum sample size (Hair et al., 2011), which is the most popular method in hospitality and tourism research (Kock, 2018), the minimum sample size for this study is 70. A total of 148 valid questionnaires were collected. The survey was conducted online, designed with Google forms and shared via the social networks (Facebook and Instagram).

The outer model evaluation, inner model evaluation, and hypotheses testing were performed with SmartPLS 3.0 applying PLS-SEM. PLS-SEM was applied because it allows the analysis of complex models with many manifest variables and theoretical constructs. Since it is a non-parameter method, there are no requirements for the distribution of manifest variables.

5. Results

Descriptive analysis was conducted to examine the sample profile of the study. Of the total number of respondents, 68% are female and 32% are male. Regarding age distribution, the 18 – 25 age group has the most respondents (49%), followed by the 36 – 45 age group (21%) and the 26 – 35 age group (18%). Most of the respondents (35%) have secondary school qualifications, followed by respondents holding undergraduate degrees (34%) and graduate degrees (23%). Almost 60% of the respondents are employed. The majority of respondents (32%) have a personal monthly income between 666,67 and 1333,34 €.

The majority of respondents have experienced AR technology usage (57%) - in the context of mobile applications. A total of 28% of respondents have tried AR technology during a tourist activity, while 71% have no experience with AR technology in tourism.

5.1. Measurement model results

In order to assess the measurement model, convergent validity, internal consistency and discriminant validity are evaluated. Table 2 presents the external loading of the variables, which are all above the required cut-off value of 0.7, ensuring valid item reliability (Hair et al., 2017).

The results of Table 2 indicate an excellent level of internal consistency, considering that all values of Cronbach's alpha coefficient and composite reliability (CR) are above 0.9 (Hair et al., 2016). The results of average variance extracted (AVE) exceeded the cut-off value of 0.5, showing that constructs explain a high percentage of variance of their indicators. The next step was to assess discriminant validity using the Fornell-Larcker criterion, as presented in Table 3.

Table 3 shows that discriminant validity was established through the square roots of AVE, which is greater than the highest correlation with other constructs. In addition, the Heterotrait-Monotrait (HTMT) matrix values range from 0.637 to 0.860, which is below the recommended threshold of 0.9. Therefore, the measurement model achieved discriminant validity (Hair et al., 2017).

Table 2 | Outer model evaluation

Constructs/Variables	Code	Outer loadings	Cronbach's Alpha	CR	AVE
Technology readiness			0.905	0.926	0.677
Technology gives people more control over their daily lives	TR1	0.786			
I prefer to use the most advanced technology available	TR2	0.837			
Technology gives me more freedom and mobility	TR3	0.868			
In general, I am among the first in my circle of friends to acquire new technology when it appears	TR4	0.770			
I can usually figure out new high-tech products and services without help from others	TR5	0.844			
I find I have fewer problems than other people in making technology work for me, compared with others	TR6	0.829			
Perceived ease of use			0.967	0.926	0.910
I believe that learning to use augmented reality will be easy for me	PEU1	0.958			
I believe that when I use augmented reality, the process will be clear and understandable	PEU2	0.965			
Learning how to use augmented reality applications is easy to understand	PEU3	0.960			
I believe it will be easy for me to become skilful at using augmented reality	PEU4	0.932			
Perceived usefulness			0.957	0.969	0.887
Augmented reality is useful for tourists	PU1	0.924			
I believe that using augmented reality in tourism industry will enhance productivity	PU2	0.948			
I believe that using augmented reality in tourism industry will enhance effectiveness	PU3	0.939			
I believe that using augmented reality makes tourist travels easier	PU4	0.955			
Hedonic motivation			0.958	0.973	0.922
Using augmented reality in tourist activities will be fun	HM1	0.959			
Using augmented reality in tourist activities will be enjoyable	HM2	0.963			
Using augmented reality in tourist activities will be very entertaining	HM3	0.958			
Intention to use			0.938	0.960	0.890
I think that I will use augmented reality frequently on my future travels	ITU1	0.947			
I am likely to use augmented reality on my next trip	ITU2	0.937			
I am willing to use augmented reality on my next trip	ITU3	0.946			

Source: Own elaboration

Table 3 | Fornell-Larcker criterion

	Hedonic motivation	Perceived ease of use	Intention to use	Perceived usefulness	Technology readiness
Hedonic motivation	**0.960**				
Perceived ease of use	0.676	0.954			
Intention to use	0.783	0.693	0.943		
Perceived usefulness	0.824	0.676	0.808	0.942	
Technology readiness	0.677	0.744	0.592	0.707	0.823

Source: Own elaboration

5.2. Structural model results

For assessing significance of path coefficients, the bootstrapping procedure with 5000 subsamples was applied. The coefficients of determination (R2) are 0.705 for Hedonic motivation and 0.723 for Intention to use AR, which are both considered as a strong effect size. Our case suggests that 72.3% of the intention to use AR can be explained by the independent variables. The blindfolding procedure was used to obtain the Stone-Geisser Q2 values, which are both greater than 0, indicating the predictive relevance of the PLS model (Hair et al., 2017). Furthermore, the saturated model's standardized squared residual (SRMR) is 0.044, which is acceptable. The results of hypotheses testing are presented in Table 4.

Table 4 | Structural model assessment

	Relationship	β	SD	t-value	p-value	Effect size	Decision
H1	Technology readiness → Intention to use AR	-0.247	0.112	2.206	0.027	0.033	Supported
H2	Technology readiness → Hedonic motivation	0.103	0.104	0.989	0.323	0.017	Not supported
H3	Perceived ease of use → Intention to use AR	0.307	0.111	2.763	0.006	0.098	Supported
H4	Perceived ease of use → Hedonic motivation	0.121	0.109	1.108	0.268	0.029	Not supported
H5	Perceived usefulness → Intention to use AR	0.537	0.118	4.566	0.000	0.609	Supported
H6	Perceived usefulness → Hedonic motivation	0.695	0.114	6.107	0.000	0.215	Supported
H7	Hedonic motivation → Intention to use AR	0.327	0.117	2.795	0.005	0.111	Supported
H8	Technology readiness → Hedonic motivation → Intention to use AR	0.034	0.040	0.833	0.405	-	Not Mediated
H9	Perceived ease of use → Hedonic motivation → Intention to use AR	0.039	0.041	0.943	0.346	-	Not Mediated
H10	Perceived usefulness → Hedonic motivation → Intention to use AR	0.228	0.087	2.627	0.009	-	Mediated

Source: Own elaboration

The results of the structural model show that the construct Technology readiness has a significant and negative effect on Intention to use AR (β=-0.247; $p<0.05$), but a non-significant and positive effect on Hedonic motivation (β=0.103; $p>0.05$). According to the missed precondition for a mediator relationship, it comes as no surprise that the effect of Technology readiness on Intention to use AR is not mediated by Hedonic motivation (β=0.034; $p>0.05$). Similarly, the construct Perceived ease of use has a non-significant positive effect on Hedonic motivation (β=0.121; $p>0.05$). Therefore, the relationship between Perceived ease of use and Intention to use AR is not mediated by Hedonic motivation (β=0.039; $p>0.05$). Finally, Perceived usefulness has a significant positive effect both on Intention to use AR (β=0.537; $p<0.05$) and on Hedonic motivation (β=0.695; $p<0.05$). Accordingly, the study proves that the mediating role of Hedonic motivation between Perceive usefulness and Intention to use AR is significant and positive (β=0.228; $p<0.05$).

6. Discussion and conclusion

This paper adds to the research topics which evaluate the relationship between new technologies and the consolidation of tourism forms focused on the digital world, as suggested by Cifuentes-Correa et al. (2023). The conducted research on future intention to use AR technology in tourism contributes to a better understanding of the application of AR technology in tourism. In general, the respondents positively rated their technology readiness, which means that according to the division given by Hanlon (2019), they can be classified in the group of early adopters, i.e., the early majority. The generational division that was mentioned can be applied in this research, given that a positive response to willingness to use technology is a possible reflection of predominantly younger respondents aged 18 to 25 years. In addition, this research proves that future intention to use AR technology is influenced through technology readiness. The results of this research are consistent with the findings of Chung et al. (2015), whose research conducted at tourist sites of cultural importance also includes a larger proportion of young respon-

dents, and it has been proven that technology readiness has a positive impact on visitors' AR usage intention. Furthermore, the starting points of the technology acceptance model (TAM) are perceived usefulness and perceived ease of use. The conducted research proved that perceived usefulness has a positive influence on intention to use AR, which is in line with the results of previous research by Gharaibeh et al. (2021), Homayounval and Pourmehr (2015) and Chung (2015). Moreover, the results show that perceived ease of use is positively related to and enhances intention to use AR technology. Similarly, a study by Homayounval and Pourmehr (2015) on the AR usage intention of Iranian tourists as well as a study by Gharaibeh et al. (2021) reached the same conclusions. According to Gharaibeh et al. (2021), ease of use is of vital importance for visitors' intention to use; therefore, the emphasis in technological innovations should be placed on simplicity and functionality. The link between hedonic motivation and intention to use AR technology reflects the human desire for new knowledge, entertainment and research (Lacka, 2018; Shin & Jeong, 2021; Ali, 2022). As Ali (2022) pointed out, the use of the hedonic dimension in the hospitality industry determines usage intentions, as usage is based on the pleasant feelings that this technology evokes in guests. The results of this research, which confirms people's aspirations for education and entertainment when intending to use AR technology, are similar. This is consistent with the findings of Calderón-Fajardo et al. (2022), who also confirmed that the hedonic dimension is a significant predictor of intention to use AR technology. This study further indicates that perceived usefulness has a significant positive effect on AR usage intention and that this relationship is mediated by hedonic motivation. This is consistent with the findings of different studies, which tested hedonic motivation as a mediator in different contexts (Siyal et al., 2020; Sitar-Tăut, 2021). Consistent with the research of Salimon et al. (2017), perceived usefulness is mediated by hedonic motivation, but the novelty of this paper is the dependent variable, intention to use AR technology.

Several limitations were observed when conducting this research. The research was conducted on a convenience sample, so the results of this analysis can be interpreted as indicative. Furthermore, the socio-demographic structure, where the majority of respondents are female, leads to the next limitation, which is related to the gender structure. The level of technology use is higher among males than among females, especially in the context of using new technology, its benefits and advantages (Venkatesh et al., 2012; Abed, 2021). Due to the higher percentage of respondents who have not encountered the concept of AR, future research could go in the direction of conducting a repeat survey over a longer period of time with the assumption that destinations will increase their efforts to implement this technology. Some of the recommendations for future research are certainly the addition of questions about facilitating conditions when using technology in general. Facilitating conditions are considered part of the UTAUT model, and future research should pay more attention to whether they influence intention to use AR technology in tourism.

Following the above, this study's practical implication for marketers is that it is important for them to pay attention to the growing desire of potential tourists for AR technology and to the upward trend of demand for this technology in the destination. As Anand et al. (2022) emphasized, even after the COVID-19 pandemic, demand for AR applications is expected to increase rapidly as people continue to take preventive measures. Accordingly, future practical steps should include action measures in the implementation of this technology in the destination's tourism offering. The goal of implementation is to create experiential marketing with the use of AR, which has the task of creating customer loyalty while using AR technology to create experiences. Potential tourists or

customers thus get a new, improved and enriched experience that will potentially encourage them to visit again or pass on the recommendation to other potential tourists. The creation of AR experiential marketing needs to be included in the tourism strategy and destination action plans so that it does not develop spontaneously, which could potentially lead to a loss in the quality of the content and the experience provided. The development of experiential marketing strategies should be approached seriously and with a clear goal of what is to be achieved by implementing AR in the destination. It is also recommended to educate local residents, one of the key stakeholders, in creating the tourist experience.

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