



## Effects of Perceived Ease of Use and Perceived Usefulness as Mediators of the Relationship between Individual Culture and Intention to Use Digital Tourism Applications and Services

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### Abstract

This study was conducted to investigate the relationship between the individual cultural characteristics of consumers and their intention to use digital services and applications in the tourism sector, and whether Perceived Benefit and Perceived Ease of Use, which are the elements of technology acceptance, have a mediating effect in this relationship. For this purpose, the data collected from 303 participants were analyzed by Structural equation modeling (SEM) method. The findings indicate that "perceived ease of use" has a partial mediator effect in the relationship between "Intention to use digital tourism applications and services" and the "uncertainty avoidance" sub-dimension of individual culture, and a full mediator effect in the relationship between "collectivism" and "long-term orientation" sub-dimensions. In addition, it was concluded that the "perceived usefulness" has a partial mediator effect in the relationship between the "intention to use digital tourism applications and services" and "collectivism", one of the sub-dimensions of individual culture, and has a full mediator effect in the relations of the sub-dimensions of "uncertainty avoidance" and "long-term orientation". With the difference tests applied to the demographic data of the participants, the effects of demographic characteristics were examined and interpreted.

### Article Type

Research Article

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## INTRODUCTION

The integration of digital technologies into business and daily life continues to increase day by day. In this rapid change process, individuals and businesses have to follow the change closely and develop themselves in line with the changing environmental conditions and adapt to new processes. The continuous transformation that started with digitalization necessitates change in the tourism sector. When the digitalization in tourism is examined, it is seen that the tourism sector has not lagged behind the times since the industrial revolution, and has always had the capacity to keep up with the change, and the technological developments have made the lives of tourists and employees easier (Atar, 2020). In the tourism sector, which is a part of the service sector, the concept of industry 4.0 focuses on efficiency, sustainability and enrichment of experience (Gretzel et al., 2015: 18). The internet and tourism movement continued through social media. With Industry 4.0, smart tourism, digital tourism and tourism 4.0 in tourism have been used frequently in the literature (Topsakal et al., 2018: 1631).

Digitalization makes businesses very fast and dynamic. With the widespread use of the internet, the world has become more interconnected. The internet of things, where everything is interconnected, such as smart technologies, wearable technology, smart objects, continues to affect both individuals and businesses. With digitalization, change in business models and lifestyles is inevitable. This rapid change process also affects the behaviour of individuals. Cultural differences can explain disparities in behaviour. Individual culture provides a method for explaining how cultural values influence behaviour and individual behaviour. The cultural values of the countries are also reflected in the businesses operating in those countries. In this context, it is important to examine the effects of the demographic characteristics of individuals and individual culture on the perceived ease of use, perceived usefulness and behavioural intention in digital tourism experiences. According to literature review, no studies have been found on investigating the mediatory roles of technology acceptance theory between the variables in terms of all sub-dimensions. However, in our study, it was aimed to investigate the effect of perceived ease of use and perceived usefulness on the relationship between individual culture and the intent to use digital tourism applications and services.

The aim of this study is to examine the effect of individual culture on perceived ease of use, perceived usefulness and behavioural intention in digital tourism experiences.

In this context, the research questions are as follows;

- Does individual culture affect digital tourism practices and services?
- Do individual culture, digital tourism applications and services affect perceived ease of use?
- Do individual culture, digital tourism applications and services affect perceived usefulness?
- Do individual culture, digital tourism practices and services affect behavioural intention?
- Does the perceived usefulness of digital tourism experiences have a mediating effect on the relationship between individual culture and behavioural digital tourism experience intention?
- Is there a mediating effect of perceived ease of use of digital tourism experiences in relation to individual behavioural digital tourism experience intention?

## Literature Review and Hypothesis Development

### Individual Culture

Culture is the behaviour patterns that can be observed in human interactions, group rules, worldview, innate characteristics integrated with a group, verbal language, mental models and thinking habits, shared values and norms, ideas, knowledge, attitudes that define a group or society and form the character of that society, as well as a system containing behaviour types (Shein, 2004, pp. 12-17). Hofstede (2011) defines culture as “the collective programming of the mind that distinguishes members of a group or category of people from others”. Culture is always a collective phenomenon. However, culture depends on different collectives. There are different individuals within each collective. Since the characteristics of individuals vary, it can be mentioned that there are differences between cultures. Cultural studies often emphasize national cultural values. National cultures provide an important paradigm for theory development in cross-cultural consumer research by associating consumer behaviour with basic universal cultural characteristics (Hofstede, 2011).

Hofstede's (2011) theory of cultural dimensions explains the values of countries that bind together the effects of a society and the behaviour of cultural members about how these values are linked. According to Hofstede's concept, a country's culture may be classified along five aspects. Masculinity vs. femininity, power distance within an organization/society, individuality vs. collectivism, uncertainty avoidance, and long-term orientation are among these factors (Magnusson et al., 2014, p. 31). Hofstede (1993) defines power gap as the degree of equality and inequality between individuals in a community. If a country's people or society are usually equal, its power distance is minimal; otherwise, it has a high power distance. Uncertainty avoidance may be characterized as a country's preference for the organized over the unstructured. Structured settings are those in which a person's behaviour is governed by defined guidelines. It expresses the level of anxiety of a community about environments where information is not clear, complexity exists, and changes develop rapidly and unpredictably. Individualism is the polar opposite of collectivism, which is essentially low individualism. Individual concerns frequently take a back seat to group interests in collectivism. Long-Term Orientation, often known as short-term or long-term orientation, refers to whether people prefer to focus on the past, present, or future. The temporal dimension of a person's decisions is referred to as long-term orientation. The high long-term orientation score illustrates how individuals in a country maintain positive relationships with other stakeholders in the future in order to keep strong links with them. Long-term orientation, frugality, and tenacity are examples of values that regard the future. Masculinity is defined as the importance of sex (men vs women) in distributing social positions. Masculinity vs. femininity refers to the roles that men and women are allocated in society, as well as society's underlying ideals about the two genders. Masculinity that reflects society's emphasis on caring for others, solidarity, and quality of life (femininity) over ambition and success (masculinity).

Differences in the cultural conditioning process reveal individuals with different assumptions, values, symbols and behaviours, different behaviours created by these individuals, societies that operate differently, and thus individual culture. Ethical attitudes differ in this context in every society (Hofstede, 1980). Castillo-Palacio et al. (2017), since culture is adopted by the society in general, it also constitutes the sum of the distinctive features of that society. Kiymalioglu, Yaras and Unal (2018) states that individuals' sense of shared identity is shaped by culture, which influences how they behave, act, and respond to things in their communities.

## **Technology Acceptance Model**

Digitalization has been widely used in the tourism sector. Within the scope of digitalization, digital tourism applications are handled in two basic ways: "electronic tourism" (e-tourism), which explains the widespread use and increase of digital platforms in tourism, and "smart tourism", which explains the possibilities brought by digitalization in tourism and the acceleration of the delivery processes of services. Rapidly growing industrial applications on digital tourism applications continue to develop day by day (Lee et al., 2017, p. 294).

Tang (2012) stated that with the network and smart data mining technology used in digital tourism applications, improving the tourism experiences of customers, the management of tourism applications and services are carried out efficiently through the systematic integration of each of the industrial development and administrative functioning. With this integration, it is possible to develop tourism and information resources and interact quickly.

Buhalis and Law (2008) stated that information technology applications increase efficiency in tourism and enable tourism organizations to carry out their activities more efficiently and effectively. Assaf and Tsionas (2018) emphasized that the digitalization of tourism services has changed the structure of the industry by removing market entry barriers, facilitating price comparison and revolutionizing distribution channels. He also stated that it has the feature of optimizing costs and increasing production efficiency.

Ozekici and Kizilcik (2022) evaluated the intentions of visitors to accept augmented reality tour guide applications and they found that all of the perceived utility (PU), perceived enjoyment (PE), perceived technicality (PT), and perceived fee (PF) factors positively and substantially influenced the perceived value (PV) for augmented reality-based tour guide applications.

Organizations operating in the tourism market with digital tourism applications and services, on the one hand, follow different strategies; on the other hand, they develop a new way and enable customers to interact with companies. The tourism industry of the future will require a number of different digital skills apart from the digital applications and services currently used (Zaragoza-Saez et al., 2021, p. 106).

## **The Relationship of Individual Culture with Perceived Usefulness, Perceived Ease of Use and Behavioural Intention in Digital Tourism Applications and Services**

It is possible to say that culture significantly affects the innovation adoption process by influencing the preferences, expectations and wishes of individuals (Taylor & Wilson, 2010, p. 235; Tolba & Mourad, 2011, p. 2). Buzova et al. (2016) and Weber et al. (2017) state that individual cultural values are effective in customers' attitudes and consumption behaviours. Markus and Kitayama (1991) stated that cultural values reveal important differences that determine not only the cognitions but also the emotions of individuals. Using the technological acceptance model, Lok (2015) investigated the adoption of a "smart card-based e-payment system" for the retail industry in Hong Kong. Rather than applying generalizations of cultural beliefs to users to more accurately reflect cultural biases, here it has drawn on clear cultural characteristics at the individual level. In this context, the cross-cultural applicability of the technology acceptance model (TAM) was investigated. He incorporated the cultural dimension developed by Hofstede into his four-dimensional work: uncertainty avoidance, masculinity, individualism and long-term orientation to explore its effects on usage behaviour through perceived usefulness. According to his results, he found that although the effect of uncertainty avoidance was found to be highly

significant, all cultural dimensions had a direct effect on perceived usefulness. Srite and Karahanna (2006) stated that information communication systems create perceptual behaviours that may appear different on the culture inherent in individuals.

When we look at the technological developments in tourism, digital services and applications are generally seen as smartness, promotion and marketing, big data, digitalized food and beverage businesses, virtual reality, digital customer relationship management, artificial intelligence applications. No study has been found that considers these practices as technology acceptance and examines their relationship with individual culture. There are some studies in the literature on the individual culture (Yuksel & Bolat, 2016) and technology acceptance model (Colak & Kagnicioglu, 2021; Soylemez & Taskin, 2020). Individual culture's influence on perceived ease of use, perceived usefulness, and behavioural intention in digital tourism applications and services is examined in this study. Davis (1989) investigated the impact of two beliefs, PU and PE, on BI within TAM and they claim that the PU and PE beliefs have a significant influence on the intention (i.e. BI) to accept technology. Bil, İnal & Özkaya (2022) found that perceived ease of use affected purchase intention directly and purchase behaviour indirectly in tehir studies. Ünalın, Yapraklı & Kaçer (2019) revealed in their studies that perceived ease of use and perceived usefulness and perceived enjoyment impacted the satisfaction and intention to use mobil shopping applications. Perceived ease of use has a favorable impact on attitudes about using information technology, and perceived usefulness has a positive impact on behavior intentions. In addition, Sercemeli & Kurnaz (2016) discovered that perceived ease of use has a positive influence on attitudes regarding the use of information technology, and perceived usefulness has a positive influence on behavior intentions. It is thought that this study will contribute to the literature since there is no study that deals with the mediating effect of the perceived usefulness of digital tourism experiences and the perceived ease of use of digital tourism in the effect of individual culture on behavioural intention. Accordingly, the hypotheses of the research are given below.

**H<sub>1a</sub>:** Power distance, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>1b</sub>:** Avoiding uncertainty, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>1c</sub>:** Collectivism, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>1d</sub>:** Long-Term Efficiency, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>1e</sub>:** Masculinity, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>2a</sub>:** Power distance, one of the sub-dimensions of individual culture, has a positive effect on Perceived Usefulness in Digital Tourism Experiences.

**H<sub>2b</sub>:** Uncertainty Avoidance, one of the sub-dimensions of individual culture, has a positive effect on Perceived Usefulness in Digital Tourism Experiences.

**H<sub>2c</sub>:** Collectivism, one of the sub-dimensions of individual culture, has a positive effect on Perceived Usefulness in Digital Tourism Experiences.

**H<sub>2d</sub>:** Long-Term Efficiency, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>2e</sub>:** Masculinity, one of the sub-dimensions of individual culture, has a positive effect on Perceived Usefulness in Digital Tourism Experiences.

**H<sub>3a</sub>:** Power distance, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences.

**H<sub>3b</sub>:** Uncertainty Avoidance, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences.

**H<sub>3c</sub>:** Collectivism, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences.

**H<sub>3d</sub>:** Long-Term Efficiency, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences.

**H<sub>3e</sub>:** Masculinity, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences.

**H<sub>4</sub>:** Perceived Ease of Use in Digital Tourism Experiences has a positive effect on the Perceived Usefulness of Digital Tourism.

**H<sub>5</sub>:** Perceived Ease of Use in Digital Tourism Experiences has a positive effect on Behavioural Digital Tourism Experience Intention.

**H<sub>6</sub>:** Perceived usefulness in Digital Tourism Experiences Has a Positive Effect on Behavioural Digital Tourism Experience Intention

**H<sub>7a</sub>:** The Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Power distance, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>7b</sub>:** The Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Uncertainty Avoidance, one of the sub-dimensions of individual culture, and Behavioural

**H<sub>7c</sub>:** There is a mediating effect of the Perceived Usefulness of Digital Tourism Experiences in the relationship between Collectivism, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>7d</sub>:** There is a mediating effect of the Perceived Usefulness of Digital Tourism Experiences in the relationship between Long-Term Efficiency, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>7e</sub>:** The Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Masculinity, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>8a</sub>:** Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Power distance, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>8b</sub>:** Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Uncertainty Avoidance, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>8c</sub>:** There is a mediating effect of Perceived Ease of Use of Digital Tourism Experiences in the relationship between Collectivism, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>8a</sub>:** There is a mediating effect of Perceived Ease of Use of Digital Tourism Experiences in the relationship between Long-Term Efficiency, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>8e</sub>:** Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Masculinity, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention.

**H<sub>9</sub>:** Demographic Factors have a positive effect on the variables.

## **Research Methodology**

### **Research Design**

The purpose of this study was to look into the effects of demographic variables and culture on perceived ease of use, perceived usefulness, and behavioural intention in digital tourism encounters. Because the study in terms of these variables has been dealt with in a limited number in terms of all variables in the literature before, it is expected that this study will contribute to the relevant literature. The research is limited to adult individuals who can use the literature and digital applications and services that can be reached with the theoretical framework. The research is limited to the determined sample, since the universe is spread over a wide area and the difficulties of reaching it in terms of labour, time and cost are taken into account. The following models were created in accordance with the study's objectives.

Figure 1, 2, 3 and 4 demonstrate the research modes for the study.

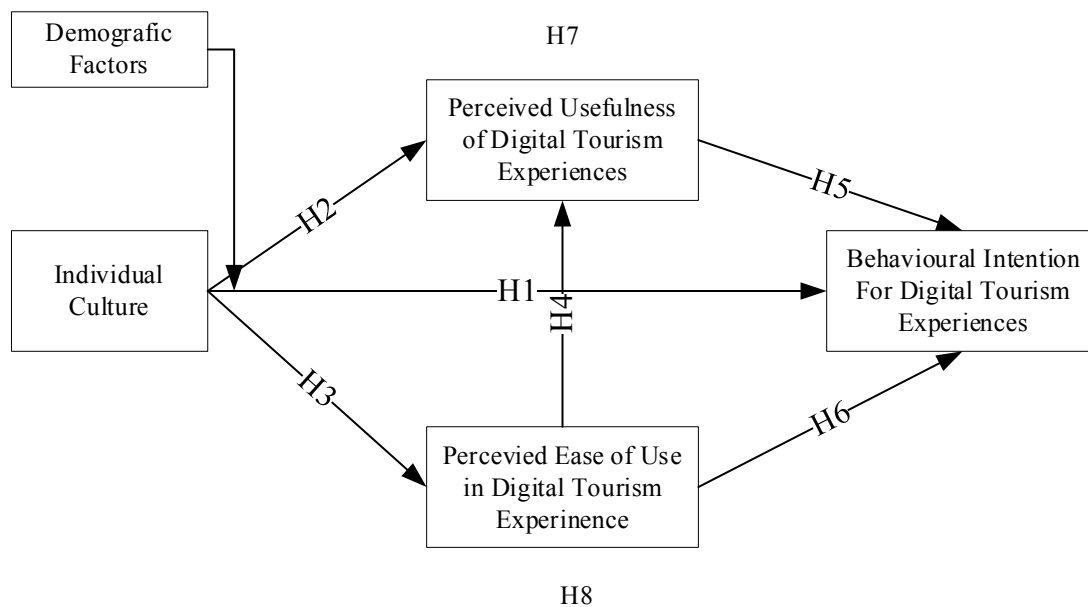


Figure 1. Research Model 1

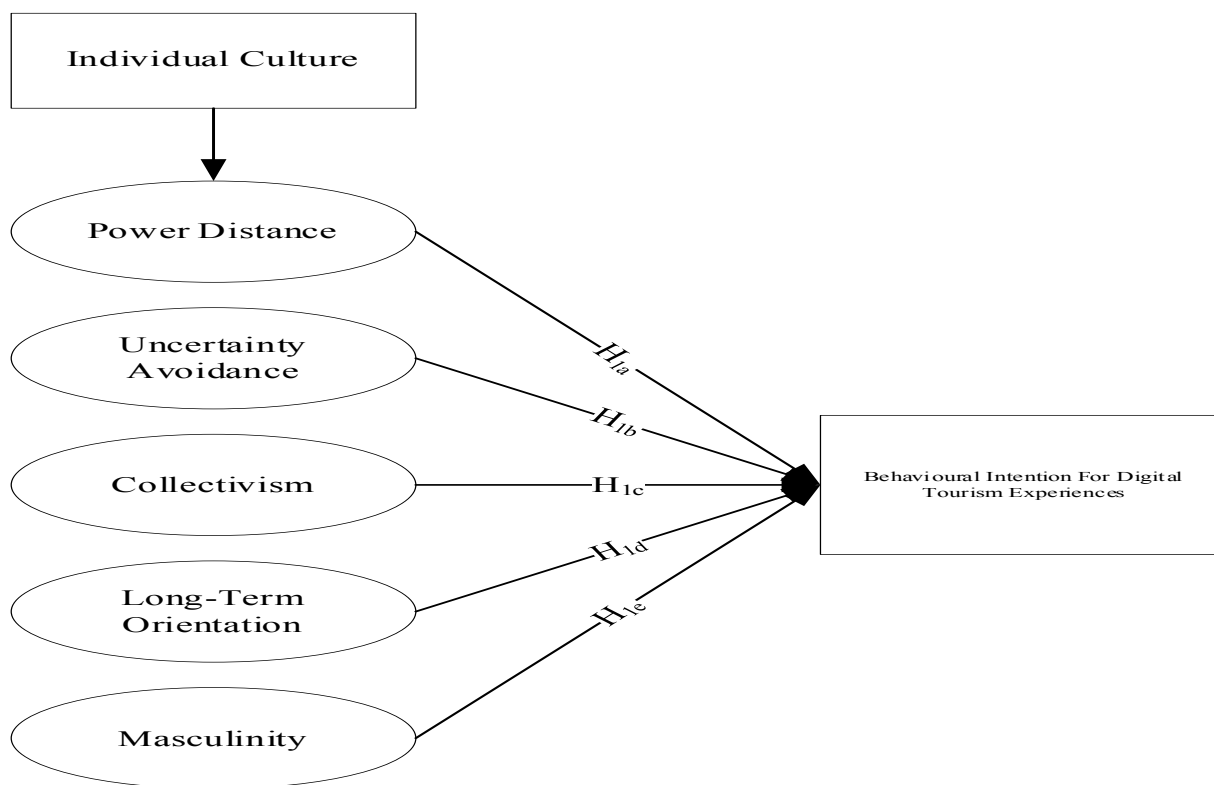


Figure 2. Research Model 2



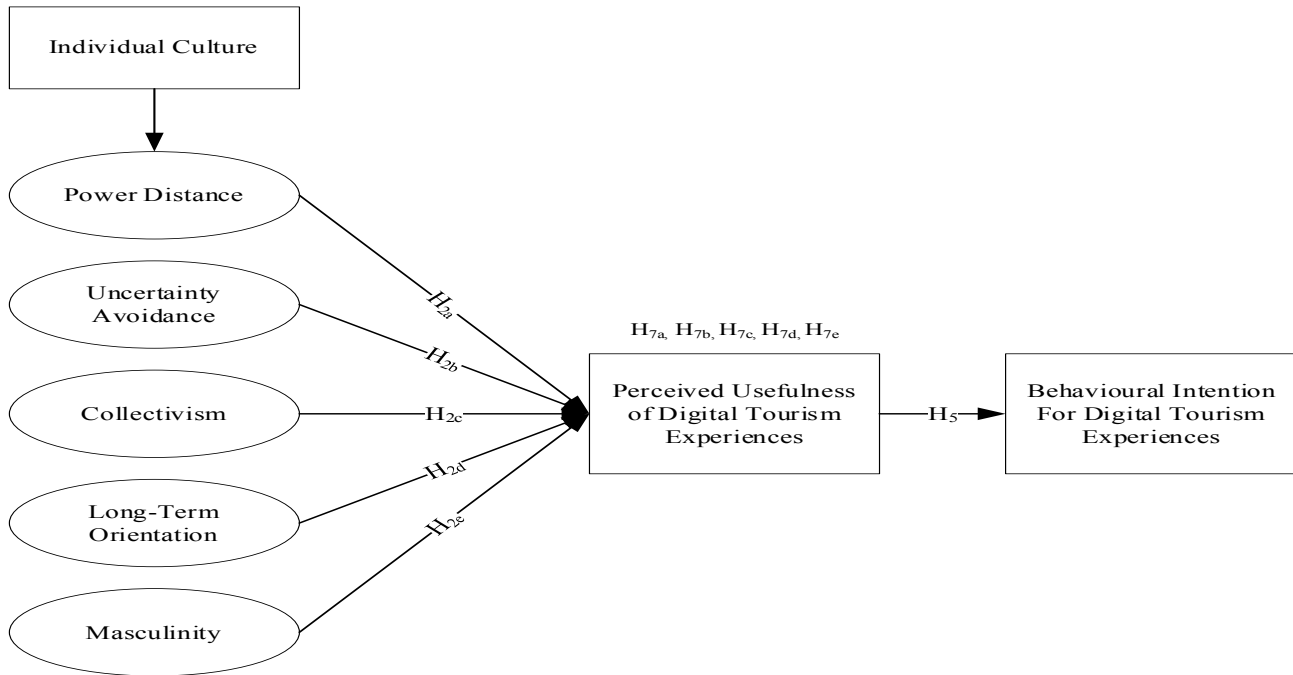


Figure 3. Research Model 3

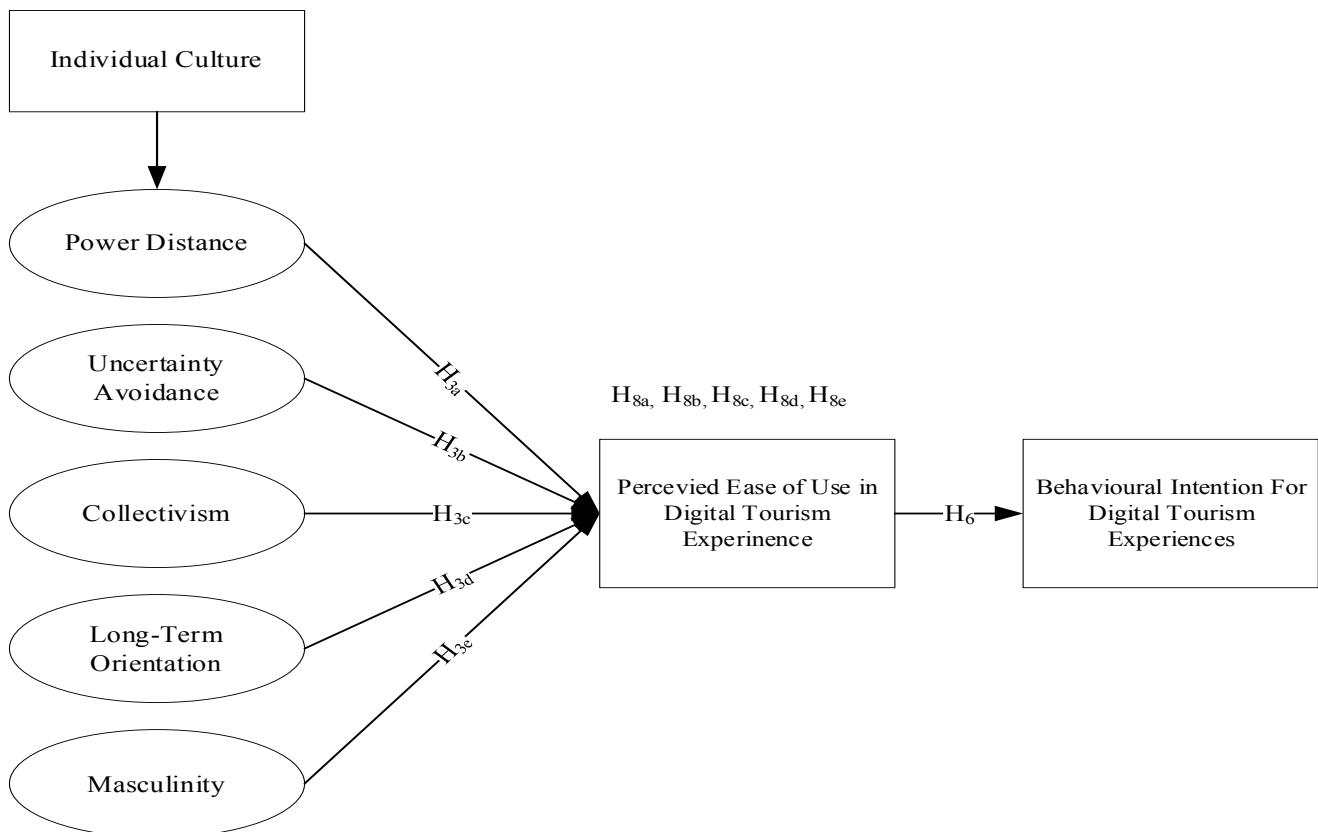


Figure 4. Research Model 4

**Sampling and Data Collection**

The sample of the study was selected by convenience sampling method. The questionnaire questions were prepared and the ethics committee approval for the participants was obtained from the ethics committee of our university. The ethics committee permission document required for the collection of the data used in this study was obtained from the Usak University Ethics Committee with the date of 13th of January, 2022 and the number of 2022 / 15 decision / issue. An online survey method was applied. Online surveys were sent via mobile applications,

social media applications and e-mail method. The sample of the study was formed by 303 participants who voluntarily agreed to participate in the research. Barlett (2007) and Hair et.al. (2010) mention that sample size more than 200 participants is necessary for an analysis to be applied confirmatory factor analysis and SEM.

### Questionnaire Design and Measures

A survey was conducted to determine the mediating effect of perceived ease of use and perceived usefulness on the effect of individual culture on the intention to use digital tourism applications and services. Questionnaire method was used in the research. In the study, the scale by which Saylık (2019) adapted the “CVSCALE - Individual Cultural Values Scale” into Turkish and performed the validity and reliability study was used, and the original version of the scale was <https://tr.scribd.com/doc/142551780/Measuring-Hofstede-sFive-Dimensions>. Scales of Perceived Ease of Use, Perceived Usefulness and Intention to Digital Experience in Tourism were adapted from Kaş (2019). Perception of ease of use and perceived usefulness questions were adapted from the work of Davis and Venkatesh (1996) and Joo & Sang (2013), behavioural intentions for use questions were adapted from the study of Joo & Sang (2013) in the study of Kaş (2019).

### Data Analysis

#### Descriptive Statistics

According to the normality test analysis, it was seen that the variables had a normal distribution. Descriptive statistics of the sample are given in Table 1.

**Table 1.** Descriptive statistics

Variables		n	%	
Gender	Female	194	64.0	
	Male	109	36.0	
Age	18-24	84	27.7	
	25-34	100	33.0	
	35-44	87	28.7	
	45 years and older	32	10.6	
	High school/Associate degree	89	29.4	
Education	Licence	158	52.1	
	Master degree	39	12.9	
	Doctorate degree	17	5.6	
Marital Status	Married	136	44.9	
	Single	167	55.1	
Digital applications and services used in the tourism industry	Online Web sites and applications	Yes	282	93.1
		No	21	6.9
	Artificial intelligence	Yes	76	25.1
		No	227	74.9
	Wearable Technology	Yes	45	14.9
		No	258	85.1
	Automatic Border Crossing	Yes	25	8.3
		No	278	91.7
	Robots in Hotels and Restaurants	Yes	68	22.4
		No	235	77.6
	Digital Ticket	Yes	151	49.8
		No	152	50.2
	Smart City Systems	Yes	56	18.5
		No	247	81.5

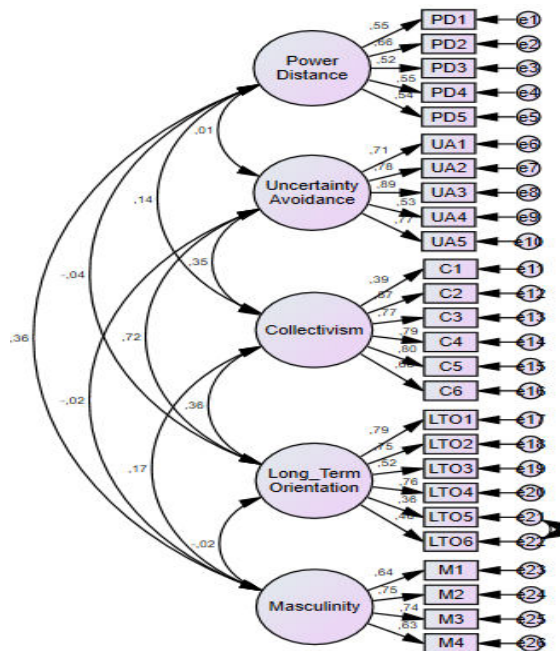
**Table 1.** Descriptive statistics (cont.)

	Digital Assistant	Yes	107	35.3
		No	196	64.7
	Online Web sites and applications	Yes	274	90.4
		No	29	9.6
	Artificial intelligence	Yes	24	7.9
		No	279	92.1
Experienced from digital applications and services used in the tourism industry	Wearable Technology	Yes	12	4.0
		No	291	96.0
	Automatic Border Crossing	Yes	24	7.9
		No	279	92.1
	Robots in Hotels and Restaurants	Yes	30	9.9
		No	273	90.1
	Digital Ticket	Yes	129	42.6
		No	174	57.4
	Smart City Systems	Yes	35	11.6
		No	268	88.4
	Digital Assistant	Yes	62	20.5
		No	241	79.5
	Travel Planning	Yes	218	71.9
		No	85	28.1
	Rezervation	Yes	245	80.9
		No	58	19.1
Digital applications and services used in the process of traveling for tourism purposes	Payment	Yes	195	64.4
		No	108	35.6
	Transportation	Yes	139	45.9
		No	164	54.1
	Accomodation	Yes	127	41.9
		No	176	58.1
	Activity	Yes	88	29.0
		No	215	71.0
	Returning and Commenting	Yes	124	40.9
		No	179	59.1
<b>Total</b>			<b>303</b>	<b>100.0</b>

Table 1 shows the distribution of participants based on their socio-demographic variables.

### Confirmatory Factor Analysis for Individual Cultural Values Scale

Results of the Confirmatory Factor Analysis for Individual Cultural Values Scale are given in Figure 5.



**Figure 5.** Research model 2

Results of the measurement model of the individual cultural values scale is given in Table 2.

**Table 2.** Results regarding the measurement model of the individual cultural values scale

Factors	Expressions	Factor Loads	Standard Error	t Values	p Values
<b>Power Distance <math>\alpha=0.688</math></b>	PD1	0.550	-	-	-
	PD2	0.656	0.157	6.944	***
	PD3	0.515	0.180	6.146	***
	PD4	0.549	0.149	6.386	***
	PD5	0.543	0.134	6.349	***
<b>Uncertainty Avoidance <math>\alpha=0.852</math></b>	UA1	0.713	-	-	-
	UA2	0.778	0.072	12.750	***
	UA3	0.894	0.070	14.360	***
	UA4	0.534	0.076	8.795	***
<b>Collectivism <math>\alpha=0.821</math></b>	UA5	0.773	0.069	12.668	***
	C1	0.389	-	-	-
	C2	0.574	0.225	5.822	***
	C3	0.773	0.273	6.403	***
	C4	0.790	0.293	6.434	***
	C5	0.804	0.324	6.459	***
<b>Long-Term Orientation <math>\alpha=0.779</math></b>	C6	0.659	0.284	6.115	***
	LTO1	0.787	-	-	-
	LTO2	0.745	0.080	12.647	***
	LTO3	0.525	0.093	8.705	***
	LTO4	0.756	0.068	12.832	***
	LTO5	0.358	0.100	5.823	***
<b>Masculinity <math>\alpha=0.780</math></b>	LTO6	0.465	0.097	7.649	***
	M1	0.640	-	-	-
	M2	0.754	0.113	9.599	***
	M3	0.739	0.109	9.513	***
	M4	0.628	0.119	8.575	***
<b>Total Reliability <math>\alpha=0.823</math></b>					

\*\*\*p<0.05

When the correlations between the variables are investigated, the factor loads of the items are found to be greater than 0.30, and all correlation relationships are significant (Kline, 1994). When the scale's dependability was assessed, it was found to have a decent degree of reliability with a score of 0.823 for the total scale. If the Cronbach Alpha value is more than 0.60, the scales are considered dependable. It shows the Cronbach alpha levels as follows; excellent (0.93-0.94), strong (0.91-0.93), reliable (0.84-0.90), robust (0.81), fairly high (0.76-0.95), high (0.73-0.95), good (0.71-0.91), relatively high (0.70-0.77) (Taber, 2018). Our result showed that Cronbach's alpha of 0, 0.823 reflects the high reliability of the scale. Cronbach's alpha test measures validity and reliability. the value of alpha ( $\alpha$ ) is expected to be min 0.7 (Cronbach, 1951:311).

**Table 3.** Goodness of fit values of the structural model of the individual cultural values scale

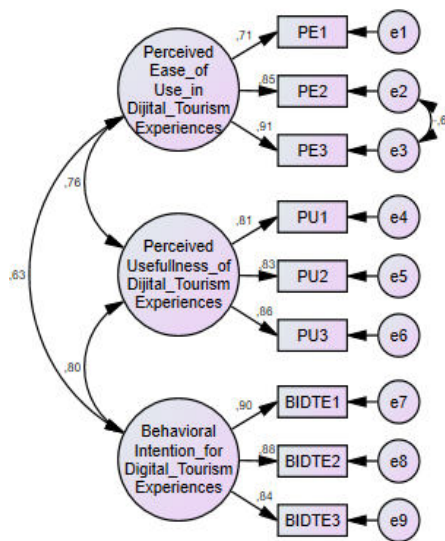
	Structural Model Values	Recommended Values
$\chi^2/df$	2.105	$\leq 5$
RMSEA	0.061	$\leq 0.08$
GFI	0.866	$\geq 0.80$
AGFI	0.837	$\geq 0.80$
CFI	0.888	$\geq 0.80$

	Structural Model Values	Recommended Values
TLI	0.874	≥0.80
IFI	0.890	≥0.80
SRMR	0.068	≤ 0.10
<b>χ<sup>2</sup>: 606.356, df: 288, p:0.000</b>		

According to the Confirmatory Factor analysis, the scale's Structural Equation Modelling Results were significant at the p=0.000 level. It has been found that the scale's 26 elements are linked to the scale structure's five sub-dimensions. The model is in the process of being upgraded. During the improvement, the factors that lowered the fit were identified, and a new covariance was constructed for those residual values with a high covariance. The allowed values for the fit indices are supplied in the later revised fit index computations, as indicated in the table.

**Confirmatory Factor Analysis for Digital Applications Acceptance Scale in Tourism Scale**

Figure 6 demonstrates the confirmatory analysis for applications acceptance scale in tourism scale dimensions.



**Figure 6.** Model for Multi-Factor Confirmatory Factor Analysis of The Scale of Acceptance of Digital Tourism Applications at the First Level

In Table 4, results regarding the measurement model of the scale of acceptance of digital applications in tourism is shown.

**Table 4.** Results on the measurement model of the scale of acceptance of digital applications in tourism

Factors	Expressions	Factor Loads	Standard Error	t Values	p Values
Perceived Ease of Use in Dijital Tourism Experiences $\alpha=0.831$	PE1	0.712	-	-	-
	PE2	0.846	0.099	11.017	***
	PE3	0.909	0.091	11.685	***
Perceived Usefulness of Dijital Tourism Experiences $\alpha=0.869$	PU1	0.805	-	-	-
	PU2	0.834	0.074	16.090	***
	PU3	0.857	0.066	16.631	***
Behavioural Intention for Digital Tourism Experiences $\alpha=0.907$	BIDTE1	0.898	-	-	-
	BIDTE2	0.884	0.045	21.458	***
	BIDTE3	0.842	0.047	19.688	***
<b>Total Reliability <math>\alpha=0.918</math></b>					

\*\*\*p<0.05

When the correlations between the variables are investigated, the factor loads of the items are found to be

greater than 0.30, and all correlation relationships are significant. When the scale's dependability was tested, it was found to have a decent degree of reliability with a score of 0.918 for the total scale.

Results about goodness of fit values of structural model of acceptance scale for digital applications in tourism is given in Table 5.

**Table 5:** Goodness of fit values of structural model of acceptance scale for digital applications in tourism

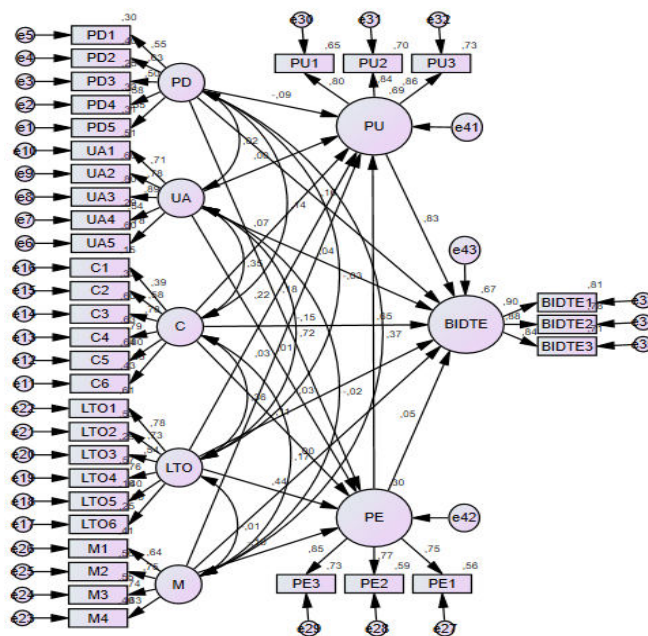
	Structural Model Values	Recommended Values
$\chi^2/df$	2.782	$\leq 5$
RMSEA	0.077	$\leq 0.08$
GFI	0.959	$\geq 0.80$
AGFI	0.920	$\geq 0.80$
CFI	0.978	$\geq 0.80$
TLI	0.965	$\geq 0.80$
IFI	0.978	$\geq 0.80$
SRMR	0.032	$\leq 0.10$

**$\chi^2: 63.990, df: 23, p:0.000$**

\*\*\*p<0.05.

The scale's Structural Equation Modeling Results were significant at the p=0.000 level, according to the Confirmatory Factor analysis. The 3-dimensional scale structure was discovered to be related to 9 of the scale's elements. The model is in the process of being improved. The accepted values for the fit indices are provided in the later revised fit index calculations, as shown in the table.

Figure 7 shows the study's research model.



**Figure7.** Research model

Table 6 demonstrates the results of the research model.

**Table 6.** Results on the research model

Hypothesis	Prediction	Standard Error	t	p	Situation
PD→PE	-0.176	0.090	-2.271	***	Acceptance

Hypothesis	Prediction	Standard Error	t	p	Situation
UA→PE	0.012	0.094	0.122	0.903	Not Acceptance
C→PE	0.114	0.059	1.657	0.097	Not Acceptance
LTO→PE	0.438	0.147	3.773	***	Acceptance
M→PE	-0.103	0.054	-1.432	0.152	Not Acceptance
PE→PU	0.654	0.067	8.925	***	Acceptance
PD→PU	-0.091	0.064	-1.524	0.127	Not Acceptance
UA→PU	0.004	0.066	0.059	0.953	Not Acceptance
C→PU	0.068	0.042	1.286	0.199	Not Acceptance
LTO→PU	0.222	0.104	2.481	***	Acceptance
M→PU	0.026	0.038	0.471	0.638	Not Acceptance
PU→BIDTE	0.832	0.137	7.438	***	Acceptance
PE→BIDTE	0.055	0.107	0.570	0.569	Not Acceptance
PD→BIDTE	0.158	0.080	2.558	***	Acceptance
UA→BIDTE	0.043	0.079	0.574	0.566	Not Acceptance
C→BIDTE	-0.149	0.052	-2.773	***	Acceptance
LTO→BIDTE	-0.027	0.125	-0.306	0.760	Not Acceptance
M→BIDTE	0.004	0.046	0.069	0.945	Not Acceptance

**Compliance Values:**  $\chi^2/df$ : 1.923, RMSEA: 0.055, GFI: 0.839, AGFI: 0.809,  
CFI: 0.900, TLI: 0.888, IFI: 0.901, SRMR: 0.062

\*\*\*p<0.05.

The results of the research model are given in Table 6. It is seen that Power Distance and Long-term orientation variables have a statistically significant effect on Perceived Ease of Use in Digital Tourism Experiences ( $p<0.05$ ). It is seen that the variables of Uncertainty avoidance, Collectivism and Masculinity do not have a statistically significant effect on Perceived Ease of Use in Digital Tourism Experiences ( $p>0.05$ ). It is seen that the variables of Perceived Ease of Use in Digital Tourism Experiences and Long-term orientation have a statistically significant effect on Perceived Usefulness of Digital Tourism Experiences ( $p<0.05$ ). It is seen that the variables of Power Distance, Uncertainty avoidance, Collectivism and Masculinity do not have a statistically significant effect on Perceived Usefulness of Digital Tourism Experiences ( $p>0.05$ ). It is seen that the variables of Perceived Usefulness of Digital Tourism Experiences, Power Distance and Collectivism have a statistically significant effect on Behavioural Intention for Digital Tourism Experiences ( $p<0.05$ ). It is seen that the variables of Perceived Ease of Use in Digital Tourism Experiences, Uncertainty avoidance, Long-term orientation and Masculinity do not have a statistically significant effect on Behavioural Intention for Digital Tourism Experiences ( $p>0.05$ ).

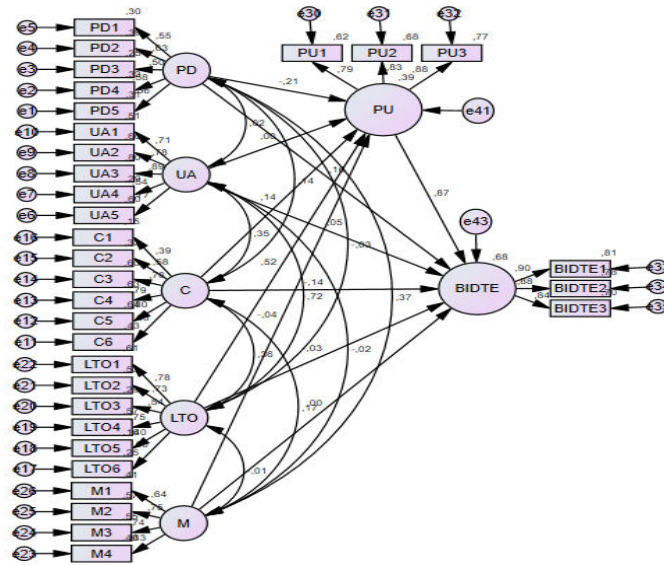
### Correlation Analysis

To assess the link between variables, Pearson correlation was used. As a consequence, Power Distance and Perceived Ease of Use in Digital Tourism Experiences had a statistically significant negative connection. ( $r=-0.150$ ,  $p<0.05$ ) and Perceived Usefulness of Digital Tourism Experiences ( $r=-0.157$ ,  $p<0.05$ ). There appears to be a relationship. Between Uncertainty avoidance and Perceived Ease of Use in Digital Tourism Experiences ( $r=0.289$ ,  $p<0.05$ ), between Perceived Usefulness of Digital Tourism Experiences ( $r=0.359$ ,  $p<0.05$ ) and Behavioural Intention for Digital Tourism Experiences ( $r=0.301$ ,  $p<0.05$ ), it is seen that there is a statistically significant and positive relationship. Collectivism and Perceived Ease of Use in Digital Tourism Experiences are found to have a statistically significant and favorable link ( $r=0.161$ ,  $p<0.05$ ) and between Perceived Usefulness of Digital Tourism Experiences ( $r=0.230$ ,  $p<0.05$ ). Between Long-term orientation and Perceived Ease of Use in Digital Tourism Experiences ( $r=0.370$ ,  $p<0.05$ ), between Perceived Usefulness of Digital Tourism Experiences ( $r=0.459$ ,  $p<0.05$ ) and Behavioural Intention for Digital Tourism Experiences ( $r=0.387$ ,  $p<0.05$ ), it can be observed that the

association is statistically significant and positive. Masculinity and Perceived Ease of Use in Digital Tourism Experiences was found to have a statistically significant negative association ( $r=-0.121, p<0.05$ ).

**Mediator Effect**

Figure 8 demonstrates the results regarding the mediators of the study.



**Figure 8.** Mediator effect model 1

**Table 7.** Results on the mediator model 1

Hypothesis	Prediction	Standard Error	t	p	Situation	
PD→BDITE	-0.036	0.098	-0.509	0.611	Not Acceptance	
UA→BDITE	0.350	0.066	5.523	***	Acceptance	
UA→PU→BDITE	Direct Impact	0.014	0.054	0.283	0.777	Not Acceptance
	Indirect Impact	0.336	Confidence Interval (0.208, 0.463)		Significant	
C→BDITE	0.139	0.063	2.126	***	Acceptance	
C→PU→BDITE	Direct Impact	-0.103	0.048	-2.101	***	Acceptance
	Indirect Impact	0.241	Confidence Interval (0.116, 0.375)		Significant	
LTO→BDITE	0.452	0.111	5.733	***	Acceptance	
LTO→PU→BDITE	Direct Impact	-0.013	0.088	-0.215	0.830	Not Acceptance
	Indirect Impact	0.464	Confidence Interval (0.315, 0.605)		Significant	
M→BDITE	-0.055	0.058	-0.808	0.419	Not Acceptance	
<b>Compliance Values:</b> $\chi^2/df$ : 1.909, RMSEA: 0.055, GFI: 0.851, AGFI: 0.822, CFI: 0.905, TLI: 0.894, IFI: 0.907, SRMR: 0.064						

It was first determined whether the independent variable had an effect on the dependent variable before investigating the mediating role in the developed model. Behavioural Intention for Digital Tourism Experiences was found to have a statistically significant and beneficial effect on uncertainty avoidance, collectivism, and long-term orientation variables ( $p<0.05$ ). While the independent variable's effect on the dependent variable was



significant, it was investigated whether a mediator role played in this effect. Hayes (2017) states that the effect is significant when the lower and upper confidence intervals do not contain zero. The fact that the 95 percent confidence interval does not contain 0 as a value according to the results of the model shows that the mediator role in the model is significant. It is seen that Perceived Usefulness of Digital Tourism Experiences variable mediates the effect of Uncertainty avoidance, Collectivism and Long-term orientation variables on Behavioural Intention for Digital Tourism Experiences. In order to decide on the type of mediation in the mediating role, which is significant, the significance of the direct effect was examined. It was concluded that the Perceived Usefulness of Digital Tourism Experiences variable had a full mediating effect of Uncertainty avoidance, and Long-term orientation variable on Behavioural Intention for Digital Tourism Experiences, and the Collectivism variable was a partial mediator in its impact on Behavioural Intention for Digital Tourism Experiences.

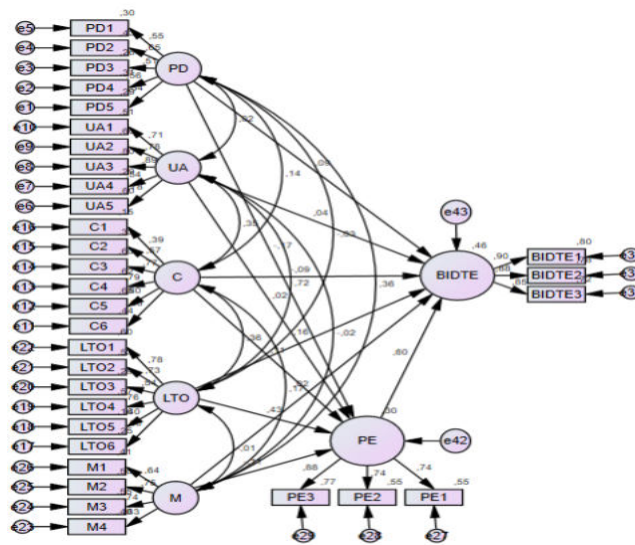


Figure 9. Mediator effect model 2

Table 8. Results on the mediator model 2

Hypothesis	Prediction	Standard Error	t	p	Situation	
PD→BDITE	-0.036	0.098	-0.509	0.611	Not Acceptance	
UA→BDITE	0.350	0.066	5.523	***	Acceptance	
UA→PE→BDITE	Direct Impact	0.125	0.060	2.173	***	Acceptance
	Indirect Impact	0.225	Confidence Interval (0.119, 0.327)		Significant	
C→BDITE	0.139	0.063	2.126	***	Acceptance	
C→PE→BDITE	Direct Impact	-0.018	0.053	-0.317	0.751	Not Acceptance
	Indirect Impact	0.241	Confidence Interval (0.116, 0.375)		Significant	
LTO→BDITE	0.452	0.111	5.733	***	Acceptance	
LTO→PE→BDITE	Direct Impact	0.168	0.095	2.503	***	Acceptance
	Indirect Impact	0.282	Confidence Interval (0.164, 0.381)		Significant	
M→BDITE	-0.055	0.058	-0.808	0.419	Not Acceptance	
<b>Compliance Values:</b> $\chi^2/df$ : 1.975, RMSEA: 0.057, GFI: 0.845, AGFI: 0.815, CFI: 0.894, TLI: 0.881, IFI: 0.895, SRMR: 0.064						

\*\*\*p<0.05.

It was first determined whether the independent variable had an effect on the dependent variable before

investigating the mediating role in the developed model. Behavioural Intention for Digital Tourism Experiences was found to have a statistically significant and beneficial effect on uncertainty avoidance, collectivism, and long-term orientation variables ( $p < 0.05$ ). While the independent variable's effect on the dependent variable was significant, it was investigated whether a mediator role played in this effect. The fact that the values in the 95% confidence interval do not include 0 according to the results of the model shows that the mediator role in the model is significant. It is seen that the Perceived Ease of Use in Digital Tourism Experiences variable mediates the effect of Uncertainty avoidance, Collectivism and Long-term orientation variables on Behavioural Intention for Digital Tourism Experiences. In order to decide on the type of mediation in the mediating role, which is significant, the significance of the direct effect was examined. It has been concluded that the Perceived Ease of Use in Digital Tourism Experiences variable is the full instrument in the effect of the Collectivism and Long-term orientation variable on Behavioural Intention for Digital Tourism Experiences, and the Uncertainty avoidance variable is the partial mediator in the effect on the Behavioural Intention for Digital Tourism Experiences.

### **Difference Tests**

The independent t-test was used in the comparison of two independent groups, and the one-way analysis of variance was employed in the comparison of more than two independent groups, to compare the Power Distance scores of the participants according to their socio-demographic characteristics. As a result, it was discovered that there is a statistically significant variation in the participants' Power Distance scores based on their gender ( $p < 0.05$ ). The male participants' Power Distance scores are higher than the female participants'. It was shown that there is a statistically significant variation in the participants' Power Distance scores based on their educational background ( $p < 0.05$ ). Bonferroni was applied to find the group that made the difference. Bonferroni correction was applied because multiple subvariables and large number of groups in the study could cause an increase in the margin of error in pairwise comparisons. Bonferroni correction is determined by the significance level/dependent variable formula (Miller, 1991; Yüksel, 2004; Polat, 2014). It is seen that the Power Distance scores of the participants with a bachelor's degree are higher than the participants with a doctorate.

The independent t-test was used in the comparison of two independent groups, and the one-way analysis of variance was utilized in the comparison of more than two independent groups, to compare the participants' Uncertainty avoidance scores according to their socio-demographic factors. As a consequence, there was no statistically significant difference between the Uncertainty avoidance scores according to the participants' socio-demographic characteristics ( $p > 0.05$ ).

The independent t-test was employed in the comparison of two independent groups, and the one-way analysis of variance was utilized in the comparison of more than two independent groups, in order to compare the Collectivism scores of the participants according to their socio-demographic features. As a consequence, there was no statistically significant difference between the participants' Collectivism scores according to their socio-demographic features ( $p > 0.05$ ).

To compare the Collectivism scores of different people, the independent t-test was employed in the comparison of two independent groups, and the one-way analysis of variance was utilized in the comparison of more than two independent groups to compare the participants' long-term orientation scores according to their socio-demographic variables. As a consequence, there was no statistically significant difference between the participants' Long-term

orientation scores based on their socio-demographic factors ( $p>0.05$ ).

The independent t-test was employed in the comparison of two independent groups, and the one-way analysis of variance was utilized in the comparison of more than two separate groups to compare the participants' Masculinity scores according to their socio-demographic variables. As a result, there is a statistically significant difference in the participants' Masculinity scores according to their gender ( $p<0.05$ ). Male participants' masculinity scores were found to be greater than female participants'.

An independent t-test was used in the comparison of two independent groups, and a one-way analysis of variance was used in the comparison of more than two independent groups, in order to compare the Perceived Ease of Use in Digital Tourism Experiences scores according to the socio-demographic characteristics of the participants. As a result, there is a statistically significant difference in Perceived Ease of Use in Digital Tourism Experiences scores depending on the participants' educational status ( $p<0.05$ ). Bonferroni was used to determine which group produced the difference. It was shown that participants with a master's degree had higher Perceived Ease of Use in Digital Tourism Experiences scores than those with a high school / associate degree.

An independent t-test was used in the comparison of two independent groups, and a one-way analysis of variance was used in the comparison of more than two independent groups to compare the Perceived Usefulness of Digital Tourism Experiences scores according to the socio-demographic characteristics of the participants. As a consequence, there was no statistically significant difference in the Perceived Usefulness of Digital Tourism Experiences ratings based on the participants' socio-demographic characteristics ( $p>0.05$ ).

In order to compare the Behavioural Intention for Digital Tourism Experiences scores according to the socio-demographic characteristics of the participants, when comparing two independent groups, an independent t-test was employed, and when comparing more than two independent groups, a one-way analysis of variance was utilized. As a result, there is a statistically significant difference in Behavioural Intention for Digital Tourism Experiences ratings based on participant age ( $p<0.05$ ). Bonferroni was applied to find the group that made the difference. It was observed that the Behavioural Intention for Digital Tourism Experiences scores of the participants aged 25-34 and 35-44 were higher than the participants aged 18-24. There was a statistically significant difference between the Behavioural Intention for Digital Tourism Experiences scores according to the educational status of the participants ( $p<0.05$ ). Bonferroni was applied to find the group that made the difference. It was revealed that the Behavioural Intention for Digital Tourism Experiences scores of the participants with undergraduate and graduate education were higher than the participants with high school / associate degree.

## **Results and Discussions**

Data was collected from 303 participants by questionnaire method in order to put the study model to the test and analyzes were carried out. The validity of the collected data structure was tested with confirmatory factor analysis. While correlation analysis was carried out to reveal the relationships between the variables, the findings on direct and indirect effects and mediation effects were revealed with the structural equation model (SEM).

According to the findings obtained within the scope of the study, Power distance, one of the sub-dimensions of Individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention (H1a: Acceptance). Power distance influences the behaviour of the less powerful as well as the more powerful members of society. It

can be stated that power distance has an importance that will determine the attitudes of the customers in the implementation of the strategic decisions taken together with the managerial applications of the enterprises. It can be explained by the high power distance in the cultural background of Turkish society. The power distance perception levels of the participants participating in the research are high. This result coincides with the study of the Yuksel and Bolat (2016) which reveals that the perception of Power distance in Turkey is more effective than other cultural dimensions.

Collectivism, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention (H1c: Acceptance). In collectivism, group interests often take precedence over individual interests. In cultures where collectivism is intense, the development of individuals is considered as a tool in this process based on the development of society (Caliskan and Ozkoc, 2016, p.243). In this context, it can be stated that it is important for businesses to create a behavioural experience intention on the basis of society in the development of digital tourism applications and services.

Long-Term Efficiency, one of the sub-dimensions of individual culture, has a positive effect on Behavioural Digital Tourism Experience Intention (H2d: Acceptance). Change can occur more rapidly in organizations in long-term oriented societies. Long-term oriented cultures are accustomed to working hard to establish strong positions in their markets and do not anticipate immediate returns (Bozkurt, 2004). For this reason, it can be stated that the adoption of digital tourism applications services by the society is long-term oriented in the sample group and creates behavioural experience intentions over a wide period of time. When implementing digital tourism applications and services, businesses should consider that they cannot get fast short-term results from their customers, and in this context, they should develop long-term sustainable strategies.

Power distance, one of the sub-dimensions of individual culture, has a positive effect on Perceived Ease of Use in Digital Tourism Experiences (H3a: Acceptance). Venkatesh (2000) stated that perceived ease of use has a direct and positive effect on user acceptance of information technology. In this study, it was determined that power distance has an effect on the individual's perceived ease of use.

Long-Term Efficiency has a positive impact on Perceived Ease of Use in Digital Tourism Experiences (H3d: Acceptance). Long-term orientation averages of the participants in the research are high. It can be stated that the effect of Long-Term Efficiency on Perceived Ease of Use in Digital Tourism Experiences includes the long-term orientation.

Perceived Ease of Use in Digital Tourism Experiences has a positive effect on the Perceived Usefulness of Digital Tourism (H4: Acceptance). The averages of Perceived Ease of Use in Digital Tourism Experiences and Perceived Usefulness of Digital Tourism Experiences of individuals participating in the research are also high. Perceived Ease of Use in Digital Tourism Experiences positively affects the perceived usefulness of Digital Tourism.

Perceived usefulness in Digital Tourism Experiences has a Positive effect on Behavioural Digital Tourism Experience Intention (H6: Acceptance). The ease of use perceived by the participants towards digital tourism applications creates their intention to have a behavioural experience. In this context, businesses should design digital applications that can be easily understood and used by customers. Being more useful and perceived ease of

use by the customer reveals an intention to use their digital tourism applications. The existence of easy, clear and understandable digital platforms can create an opportunity for businesses that want to gain competitive advantage.

According to the findings obtained as a result of the analyzes carried out to test the models in order to measure the mediation effect in the research, the Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Uncertainty Avoidance, one of the sub-dimensions of Individual culture, and Behavioural Digital Tourism Experience Intention (H7b: Acceptance - full mediator). In societies with low uncertainty avoidance, individuals are more open to new ideas and change. In societies where uncertainty avoidance is high, individuals tend to perceive innovations as threats, so they create resistance to risk, innovation and change, which slows down the diffusion and acceptance of innovation. In high uncertainty avoidance, support for entrepreneurship and innovation is very low (Rauch et al., 2013: 736).

Uncertainty avoidance levels of the participants in the research are quite high. It has been found that the Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between the Uncertainty Avoidance levels of the participants and their Behavioural Digital Tourism Experience Intentions. It is seen that the individuals participating in the research have a high level of uncertainty avoidance. Individuals may view innovations as risks because they tend to perceive innovations as threats, and perceived usefulness is thought to play a mediating role in this sense.

The Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Collectivism, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention. (H7c: Accepted - partial mediator).

The Perceived Usefulness of Digital Tourism Experiences has a mediating effect on the relationship between Long-Term Efficiency, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention (H7d: Acceptance - full mediator). Perceived usefulness has a full mediating role in the relationship of long-term orientation with Behavioural Digital Tourism Experience Intention.

Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Uncertainty Avoidance, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention (H8b: Acceptance - partial mediator).

Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Collectivism, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention (H8c: Acceptance - full mediator).

Perceived Ease of Use of Digital Tourism Experiences has a mediating effect on the relationship between Long-Term Efficiency, one of the sub-dimensions of individual culture, and Behavioural Digital Tourism Experience Intention (H8d: Acceptance - full mediator). In this context, it has been found that Perceived Ease of Use has a full mediating role in the relationship between Collectivism and long-term efficiency levels and Behavioural Digital Tourism Experience Intention.

Demographic Factors have a positive effect on the variables (H9: Acceptance). According to the findings obtained from the research, there is a statistically significant variation in the individuals' Power Distance ratings based on their gender ( $p < 0.05$ ). The male participants' Power Distance scores are higher than the female

participants'. It can be seen that there is a statistically significant variation in the individuals' Power Distance ratings based on their educational status ( $p < 0.05$ ). It's clear that participants with a bachelor's degree have higher Power Distance scores than those with a doctorate. It can be noticed that there is a statistically significant variation in the participants' Masculinity scores based on their gender ( $p < 0.05$ ). Male participants' Masculinity scores appear to be greater than female participants'. There is a statistically significant difference in the Perceived Ease of Use in Digital Tourism Experiences ratings depending on the participants' educational status ( $p < 0.05$ ). It can be noticed that participants with a master's degree have higher Perceived Ease of Use in Digital Tourism Experiences scores than those with a high school / associate degree. It can be said that the level of education has an impact on digital tourism applications and services in Perceived Ease of Use in Digital Tourism Experiences. It can be said that there is a statistically significant difference between the Behavioural Intention for Digital Tourism Experiences scores according to the age of the participants ( $p < 0.05$ ). It is seen that the Behavioural Intention for Digital Tourism Experiences scores of the participants aged 25-34 and 35-44 are higher than the participants aged 18-24. It can be interpreted that the higher Behavioural Intention for Digital Tourism Experiences scores of the participants aged between 25-34 and 35-44 are due to the fact that they have more technological experience. It is found that there is a statistically significant difference between the Behavioural Intention for Digital Tourism Experiences scores according to the educational status of the participants ( $p < 0.05$ ) appears to be too much. The higher the education level, the higher the Behavioural Intention for Digital Tourism Experiences. In this context, businesses have to take into account the gender, age and education level of their customers when creating digital applications and services.

## Conclusion

Today, businesses are faced with some difficulties such as globalization, intense competition environment, different customer expectations, together with the dizzying progress in information and communication technologies. It has been a necessity to adapt the changes and transformations in the technological environment to the business. It is of great importance for businesses that want to maintain their long-term strategic position to follow technological change in order to maintain their existence against their competitors. For the success of businesses, the ability to create a strategy for information and communication technologies and to analyze customer expectations well provides the opportunity to gain competitive advantage. Businesses continue their existence by developing different strategies in different countries and regions. At this point, it can be said that the environment of businesses is important in determining their strategies. It can be said that one of the important reasons for this is due to the cultural difference. The cultural difference between nations, groups and individuals has an important role in the formation of business strategies. In this context, individual culture is effective in determining consumer behaviour.

In this study, the effect of individual culture on digital tourism practices and services was examined. A study was carried out within the context of the technology usage model, which is used to describe how information communication technologies are adopted. The impact of individual culture on behavioural intention is examined in terms of power distance, uncertainty avoidance, collectivism, long-term orientation, and masculinity, which are individual culture sub-dimensions. The technology acceptance model's mediation influence of perceived ease of use and perceived usefulness in the relationships between these two variables was investigated. It was concluded that from the sub-dimensions of individual culture Power distance and Collectivism were found to have a positive

effect on Behavioural Digital Tourism Experience Intention. Only Long-Term Efficiency was shown to have a favourable influence on Behavioural Digital Tourism Experience Intention among the sub-dimensions of individual culture. Perceived Ease of Use in Digital Tourism Experiences was shown to be positively influenced by power distance and long-term efficiency sub-dimensions. Behavioural Digital Tourism Experience Intention was found to be positively influenced by Perceived Usefulness in Digital Tourism Experiences. It was concluded that the association between Uncertainty Avoidance and Perceived Usefulness of Digital Tourism Experiences is fully mediated by Perceived Usefulness of Digital Tourism Experiences. Also, it was concluded that Long-Term Efficiency fully mediates the relationship between the two variables. Perceived usefulness was shown to have a partly mediation effect in the association between the participants' collectivism levels and their behavioural digital tourist experience goals. Participants' Perceived Ease of Use was found to play a partial mediating role in the relationship between Uncertainty Avoidance Levels and Behavioural Digital Tourism Experience Intentions, as well as in the relationship between Collectivism, Long-Term Efficiency, and Behavioural Digital Tourism Experience Intentions. Finally it was concluded that demographic factors had a positive impact on the variables.

This study reveals the relationship of individual culture with perceived usefulness, perceived ease of use and behavioural intention in digital tourism applications and services. Since it evaluates and analyzes the existing technology model in the literature with different dimensions and develops a different model, it will be a guide for future studies, businesses, information and communication technologies experts, digital tourism application and service providers about customer expectations. In addition, this study will contribute to businesses by revealing the importance of individual cultures of consumers in digital applications and services in tourism. It was also concluded that Perceived Ease of Use in Digital Tourism Experiences had a positive impact on Digital Tourism's perceived usefulness.

### Disclosure statement

No potential conflict of interest was reported by the authors. The ethics committee permission document required for the collection of the data used in this study was obtained from the Usak University Ethics Committee with the date of 13th of January, 2022 and the number of 2022 / 15 decision / issue.

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#### **Appendix-1: Ethics Committee Permission**

**T.C.**  
**UŞAK ÜNİVERSİTESİ**

**SOSYAL VE BEŞERİ BİLİMLER**  
**BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ KURULU KARARLARI**

**TOPLANTI SAYISI: 01**

**KARAR TARİHİ: 13.01.2022**

Üniversitemiz Bilimsel Araştırma ve Yayın Etiği Yönergesi gereğince, Sosyal ve Beşeri Bilimler Bilimsel Araştırma ve Yayın Etiği Kurulu, Kurul Başkanı Prof. Dr. Sayın DALKIRAN başkanlığında toplanarak gündem maddelerinin görüşülmesine geçilmiştir.

**KARAR 2022-15**

Dr. Öğr. Üyesi Makbule Hürmet ÇETİNEL ve Öğr. Gör. Dr. İlknur MAZAN'ın birlikte yapmayı planladıkları "Bireysel Kültürün Dijital Turizm Uygulamaları ve Hizmetlerinde Algılanan Kullanım Kolaylığına, Algılanan Kullanışlılığa ve Davranışsal Niyete Etkisi" başlıklı araştırması kapsamında uygulanacak yöntemlerin etik açıdan uygun olduğuna oybirliği ile karar verilmiştir.

	Üyenin Adı Soyadı	İmza	No	Üyenin Adı Soyadı	İmza
1	Prof. Dr. Sayın DALKIRAN Başkan	İMZA	4	Prof. Dr. Murat HİŞMANOĞLU Üye	İMZA
2	Prof. Dr. Erol DURAN Başkan Yardımcısı	İMZA	5	Prof. Dr. Murat Mustafa ÖNTUĞ Üye	İMZA
3	Prof. Dr. Ayhan Oğuz ÜNLÜER Üye	İMZA	6	Prof. Dr. Talip YILDIRIM Üye	İMZA
7	Prof. Dr. Bilal SEZER Üye	İMZA		Av. Zakire BAYRAKTAR DÜZGÜN Raportör	İMZA

ASLI GİBİDİR  
AVUKAT  
Zakire BAYRAKTAR DÜZGÜN