



Research Article

**A STUDY OF DIGITAL TOURISM EXPERIENCES REVEALING THE MEDIATING ROLE OF DIGITAL TRUST IN THE RELATIONSHIP BETWEEN PERSONALITY TRAITS AND TECHNOLOGY ACCEPTANCE: TURKIYE EXAMPLE**

M. Hürmet ÇETİNEL<sup>1</sup> (orcid.org/0000-0003-3260-7432)

İlknur MAZAN<sup>2\*</sup> (orcid.org/0000-0002-2321-0639)

<sup>1</sup>Uşak Üniversitesi, Uygulamalı Bilimler Fakültesi, Lojistik Bölümü, Uşak, Türkiye

<sup>2</sup>Uşak Üniversitesi, Banaz MYO, Turizm ve Otel İşletmeciliği Bölümü, Uşak, Türkiye

**Abstract**

This study investigates the impact of personality traits and the role of digital trust in the acceptance of digital applications and services utilized in tourism experiences. Data were collected from 417 persons in Türkiye via an online survey during July-September 2021. The convenience sample method was used for data collection and the hypotheses were tested via statistical approaches according to the findings of the SEM. The limitations of this study are the time constraints in reaching people willing to answer the survey part of the study, and the limited number of studies on the concept of digital trust in the literature. Given that technological acceptance and trust fluctuate from person to person, and since digitalization will become more prevalent in our lives, it is expected that the digital trust factor will be important factor for adoption to use digital applications and services. This study offers building digital trust in their customers to organizations trying to capture the process of digital change and transformation with the help of various digital technologies and applications. Since no studies were found in the related literature that investigate whether digital trust has a role in mediating the relationship between personality traits and technology acceptance, this study can be important to provide light on future developments.

**Keywords:** Personality Traits, Technology Acceptance, Digital Trust, Digitalization in Tourism, Digital Tourism Experiences

**Introduction**

“Imagine sitting comfortably on your couch in Florida and virtually walking into your hotel room in Japan for your upcoming holiday. Does it sound like a sci-fi movie? Well, this is what the metaverse can possibly do” Gahare (2022).

It is obvious that the above-mentioned sentences and similar ones will be encountered more and more. With the words “the metaverse is the next stop of the internet”, Zuckerberg states that the next stop of digitalization will be the metaverse (Kiong, 2022). In the near future, it is thought that digital elements will become widespread among both individuals and businesses in the tourism sector, as in every sector. At this point, before mankind has not fully entered the world of the metaverse, the effect of personality traits on willingness of individuals to experience digital environments, applications and services, and the role of digital trust in this effect emerge as a subject worth investigating. In this direction, personality traits, digitalization, technology acceptance, digital trust and digital tourism experiences are discussed in this study.

Today, rapid change processes in information and communication technologies require the digitalization of organizations and businesses. In order to maintain their existence, organizations have to keep up with the changing and transforming technology. Therefore, digitalization is a strategic need for them. With technological changes, the constant change of consumer demands and needs, changes in consumer purchasing behaviour, new digital technologies and applications are used. Interactions in digital transformation take place rapidly through networks. The world has now become more interconnected. Organizations have begun to replace traditional business models with new digital technologies.

\*Corresponding author: [ilknur.mazan@usak.edu.tr](mailto:ilknur.mazan@usak.edu.tr)

DOI: 10.33083/joghat.2023.337

In the digital transformation process, it is important for individuals to accept technology and use digital applications. It is very important for businesses to be able to manage new digital technologies and applications in a strategic, conscious and planned manner and to direct their plans for the future with innovation. Businesses can gain competitive advantage by preparing new technological information production processes and applying them to business models.

Digital trust can be expressed as consumer trust in new digital technologies and applications implemented by organizations. The rapid spread of communication and information technologies brought by digitalization and use of digital applications by organizations requires the protection of users' information and the creation of a platform where they can interact by providing them with a secure environment. Personality traits can affect an individual's behaviour. In the digitalization process, personality traits can be effective in determining attitudes and intentions of individuals to new technologies. In this perspective, the focus of this research is to investigate the impact of personality factors on people's attitudes toward technological acceptance. In this direction, it was examined whether digital trust has a mediating role in the relationship of personality traits with technology acceptance. This study is important in terms of addressing the issue in terms of these three variables.

## **Literature review and hypothesis development**

### **Personality Traits**

Personality expresses cognitive and behavioural patterns (Cattell, 1965). The term personality constitutes the dynamic, organized and genuine set of features of the individuals (Allport, 1961; Ryckman, 1997). Personality traits affect the individual's personal values and attitudes (Olver and Moradian, 2003). One of the most prominent models developed about personality is the Five Factor Personality Model. The five major personality taxonomies describe personality structure at a broad level of abstraction. "Extraversion, conscientiousness, neuroticism, agreeableness, and openness to experiences" are used to describe personality qualities in this context (Costa et al., 1991).

Extraversion is the individual's social, active, assertive positive emotional characteristics, and having a more energetic approach to the world. Extraversion is typically a positive personality trait. The individual's response to stimuli is positive and associated with general sociability and happiness (John and Srivastava, 1999; Heller et al., 2002).

Conscientiousness can be expressed as following the norms and rules, planning the tasks, organizing the works in order of priority, focusing on target-oriented behaviours. Responsible individuals are conscientious and reliable. Neuroticism refers to the emotional state. Neuroticism is defined as an individual's being anxious, tense, sad, unable to cope with activities of daily living, emotional distress and anguish (John and Srivastava, 1999).

Agreeableness refers to the person's sympathetic, warm, polite and cooperative characteristics. Adaptable individuals show self-confident and humble personality traits (Digman, 1990; John and Srivastava, 1999). Openness to experiences can be explained as the, uniqueness, depth and complexity of an individual's life in relation to her mind and experiences. Openness to experiences explains features such as an individual's active variety preference, aesthetical sensitivity, imaginativeness, and intellectual interest (Arthur and Graziano, 1996; Sumer et al., 2005).

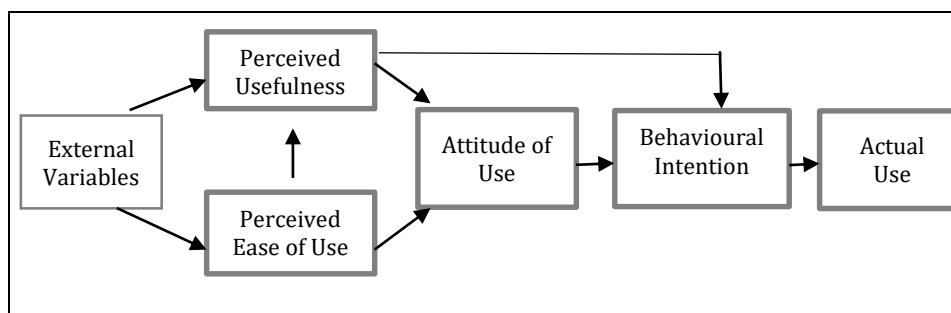
### **Technology Acceptance**

The rapid change in technology has changed the daily lives of people and the way companies do business. Technology acceptance is defined as willingness to adopt technology (Rondan - Cataluna, 2015; Dillon, 2001). The technology acceptance model describes the behaviours of individuals about technology. The model aims is to explain a behavioural pattern by means of users about technology acceptance antecedents (Davis, 1989) and generally consists of two main structures. These are the "perceived usefulness" and "perceived ease of use" characteristics that explain how people use technology (Rauniar, et al., 2014). Usability and simplicity of use are the most important variables in this paradigm, as they drive new usage. Individuals' attitudes and intentions toward technology usage are influenced by perceived ease of use and utility (Rondan - Cataluna et al., 2015).

The degree to which an individual adopts a new technology and the degree to which it is considered that using that technology would achieve worthwhile goals determine perceived usefulness. The attitude toward

easy and seamless usage of this technology is thought to be determined by perceived ease of use (Davis, 1989).

**Figure 1. The Technology Acceptance Model**



**Source: Davis, 1989.**

The technology acceptance theory applied for many technological tools and for many users (Alomary and Woollard, 2015). According to Zollo et al. (2021), new digital technologies have become more and more important in the field of tourism along with the digitalization process. New digital innovation areas and applications such as virtual environments, social media platforms, virtual museums, and smart cities are effective in attracting new visitors in the field of tourism and in gaining competitive advantage for businesses.

### **The Relationship between Personality Traits and Technology Acceptance**

There are researches in the literature that investigate at the relationship between individual personality qualities and technology acceptance. Ozbek et al. (2014) looked at the impact of personality traits on technology acceptance, specifically the relationship between five-factor personality traits and technology acceptance factors such as perceived utility, perceived ease of use, and behavioural intention. Individuals with the pleasant personality trait are more likely to see smartphone technology as advantageous, whereas those with a high "openness to experiences" personality trait are more likely to see smartphone technology as simple. Hui-Yi (2014) stated that individuals' different personality traits and attitudes towards innovation may affect the technology acceptance of individuals for the (QR) code service used in smart phones. According to his results, individuals have a negative attitude towards innovation and are less willing to adopt the QR code service used in smartphones. In addition, personality characteristics were discovered to play a mediating role in the association between attitudes toward innovation and service acceptance in this study.

Harb and Alhayajneh (2019) examined the relationship between integrated technology acceptance and personality traits and presented a model integrating business intelligence technologies acceptance and personality. Barnett et al. (2015) looked at how people perceive and utilize technology in terms of personality traits and discovered that there is a link between conscientiousness and neuroticism and how people perceive and use technology. Furthermore, the conscientiousness personality trait has a favourable link with real and perceived usage, according to the study. Neuroticism, on the other hand, is negatively related. Extraversion is associated with actual technology usage. According to the results obtained, there are important relationships between technology usage and personality traits. It has been determined that there is no mediating relationship in terms of intentions. Sindermann et al. (2020) argued that personality significantly influences technology acceptance perceptions and decisions. He found that there is a relationship between altruism, which is an aspect of personality, and individuals' gender, personality, and technology acceptance. As a result, he claims that in men, there is a negative association between altruism and the desire to use a smartphone, but in women, there is a positive relationship. Personality traits have an impact on the acceptability of information technology in the workplace, according to Ramirez-Correa et al. (2020).

H1: Personality traits of individuals have a significant impact on technology acceptance in tourism experiences

### **The mediator role of digital trust in tourism experiences**

Digitalization basically means automation and it has an impact that transforms all sectors from natural resources to the service sector (Secer, 2017). Digitalization in tourism activities is emerging with businesses struggling in a highly competitive environment, and destinations, travel and accommodation businesses,

museums, organizers and other tourism-related businesses are increasingly digitizing (Alford and Jones, 2020; Capriello and Riboldazzi, 2020; Lam and Law, 2019; Hadjielias et al. 2021). The tourism sector adapts to developments in mobile phones, internet, virtual - augmented reality and to similar technologies. Artificial intelligence and etc. and robotic integration are used in the sector, including accommodation, airline and restaurant (Park, 2020). With the use of digitalization in the tourism sector, changes occur in service encounters (Tussyadiah and Park, 2018), and at this point, it is an important issue for people to trust this new system.

The concept of trust has been studied by many academic disciplines such as sociology, management, and marketing, and the study of this concept in the field of tourism dates back to the 1990s (Palácios et al. 2021). Lee and See (2004) define trust as the belief that an agent would assist a person in achieving his or her goals in a circumstance marked by ambiguity and vulnerability. Kim et al. (2011) state that "online trust in tourism" is a precondition for e-loyalty and a result of the functionality, perceived safety, and satisfaction of surfing the Internet when purchasing tourism products online.

Dutta, Sharma, and Goyal (2021), in their study examining the effect of customers' digital advocacy on the decision to purchase travel and tourism services, conclude that influencers and digital word of mouth are quite effective in tourism. Park (2020) examined people's trust in service robots in the tourism sector. In the literature, there are similar studies on digital trust, especially in the tourism sector in recent years. However, according to the researcher's knowledge no study has been found in which individuals' personality traits, technology acceptance and tourism experiences are examined together. Considering that the concepts of trust and technology differ from person to person, it is thought that personality traits will be a precursor at this point and digital trust will also be a tool. Maican et al. (2019) found that work engagement has a mediating effect in the relationship between technology acceptance and personality. This study intends to fill a gap in the literature by analysing whether digital trust performs as mediator of the relationship between technology acceptance and personality traits.

H2: Digital trust has a mediating effect in the relationship between personality traits and technology acceptance.

H2a: Digital trust mediates the relationship between extraversion sub-dimension of personality traits and technology acceptance.

H2b: Digital trust mediates the relationship between agreeableness sub-dimension of personality traits and technology acceptance.

H2c: Digital trust mediates the relationship between conscientiousness sub-dimension of personality traits and technology acceptance.

H2d: Digital trust mediates the relationship between neuroticism sub-dimension of personality traits and technology acceptance

H2e: Digital trust mediates the relationship between openness to experiences sub-dimension of personality traits and technology acceptance

## **Methodology**

The ethics committee approval for the participants was obtained from the ethics committee of Usak University and the ethics committee permission document of the data which were used in this study was obtained from the Usak University Ethics Committee in 13th of January, 2022 and the number of 2022 / 16 decision / issue.

## **Research model**

**Figure 2. Research Model**

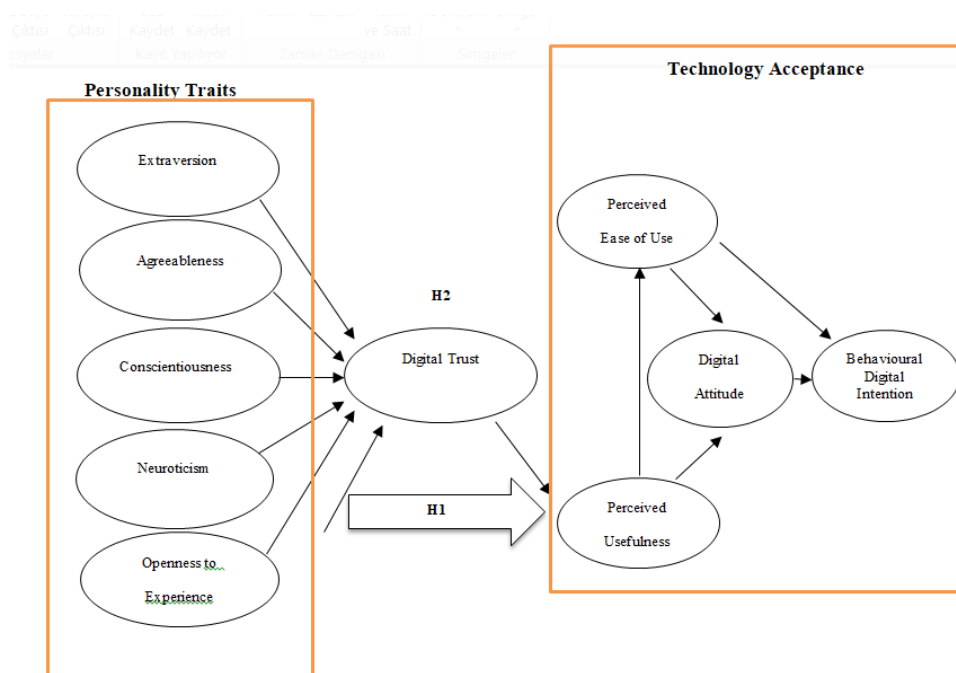


Figure 2 demonstrates the research model for the study. Questionnaire technic was used in the research. The questionnaire consists of four parts; personality traits, digital trust, technology use and demographic information. Personality was measured in five dimensions, technology acceptance in four dimensions, and digital trust in one dimension. The relationship between the five-factor personality trait, the sub-dimensions of the five-factor personality trait, technology acceptance, and the sub-dimensions of technology acceptance is the subject of four primary research hypotheses based on the literature review. Digital trust was examined to have a mediating effect in the relationship between technology acceptance and personality traits.

### Sampling and data collection

The sample of the research was selected by convenience sampling method and the online survey method was applied in the research. Online surveys were sent via social media applications and e-mail to 500 people. Feedback was received from 417 participants from different cities of the country.

### Questionnaire design and measures

Questionnaire method was used in the research. The questionnaire consists of four parts; personality traits, digital trust, technology use and demographic information. Personality was measured in five dimensions, technology acceptance in four dimensions, and digital trust in one dimension. The relationship between the five-factor personality trait, the sub-dimensions of the five-factor personality trait, technology acceptance, and the sub-dimensions of technology acceptance is the subject of four primary research hypotheses based on the literature review. Digital trust was examined to have a mediating effect in the relationship between technology acceptance and personality traits.

This study used three measures to look at the role of digital trust in mediating the relationship between personality factors and technological acceptance, as well as to predict tourism experiences. The personality scale is the "Big Five Personality (BFI-44)" scale, which was created by John, Donahue, and Kentle in its shortened form (1991). The scale was adapted into Turkish by researchers such as Evinc (2004), Sumer and Sumer (2005), and reliability studies were conducted. The first three expressions of the Digital Trust Scale are from Pacan Ozcan, Sabah Celik, and Ozen (2019), who used the Turkish version of the scale in the studies of Chong, Keng - Boon, Binshan, and Boon-In (2010); The fourth and fifth statements are adapted from Kaplan (2018)'s work. The Digital Attitude Scale was adapted from the "Scale in the studies of Pacan Ozcan et al. (2019)", which was adapted from the study of Lee (2009). Kas's (2015) Perceived Usefulness, Perceived Ease of Use, and Behavioural Digital Intention in Tourism Experiences scales were adapted.

### Findings and Evaluation

#### Data Analysis

The sample of the research was selected by convenience sampling method and the online survey method was applied in the research. Online surveys were sent via mobile applications, social media applications and e-mail. Feedback was received from 417 participants. Table 1 shows the profile of the participants.

### Descriptive Statistics

The distribution of the respondents according to their socio-demographic characteristics is given in the Table 1.

**Table 1. Profile of Survey Respondents (n = 417)**

Variables		n	%	
Gender	Female	276	66.2	
	Male	141	33.8	
Age	18-24	187	44.8	
	25-34	152	36.5	
	35 years old and older	78	18.7	
Education Status	High school	130	31.2	
	Associate degree	83	19.9	
	Licence	184	44.1	
	Post graduate	20	4.8	
Profession	Public	41	9.8	
	Private sector	72	17.3	
	Student	144	34.5	
	Housewife	78	18.7	
	Not working	50	12.0	
	Other	32	7.7	
Monthly Income	1000 TL and below	189	45.3	
	1001-3000 TL	83	19.9	
	3001-5000 TL	84	20.1	
	5001 TL and above	61	14.7	
Marital Status	married	194	46.5	
	single	223	53.5	
Known from Digital Applications Used in the Tourism Sector	Online Sites and Applications	Yes	343	82.3
		No	74	17.7
	Artificial intelligence	Yes	106	25.4
		No	311	74.6
	Wearable Technology	Yes	95	22.8
		No	322	77.2
	Automatic Border Crossing	Yes	48	11.5
		No	369	88.5
	Robots in Hotels and Restaurants	Yes	94	22.5
		No	323	77.5
	Digital Ticket	Yes	216	51.8
		No	201	48.2
	Smart City Systems	Yes	188	45.1
		No	229	54.9
	Digital Assistant	Yes	187	44.8
		No	230	55.2
Experienced from Digital Applications Used in the Tourism Sector	Online Sites and Applications	Yes	343	82.3
		No	74	17.7
	Artificial Intelligence	Yes	72	17.3
		No	345	82.7
	Wearable Technology	Yes	48	11.5
		No	369	88.5
	Automatic Border Crossing	Yes	38	9.1
		No	379	90.9
	Robots in Hotels and Restaurants	Yes	35	8.4
		No	382	91.6
	Digital Ticket	Yes	48	11.5
		No	369	88.5
	Smart City Systems	Yes	92	22.1
		No	325	77.9
	Digital Assistant	Yes	61	14.6

	No	356	85.4
Digital Applications and Services Used in the Process of Traveling for Tourism Purposes	Reservation	175	42.0
	Payment	106	25.4
	Transportation	62	14.9
	Accommodation	28	6.7
	Activity	14	3.4
	The process of returning and commenting	32	7.7
Total		417	100.0

**Confirmatory Factor Analysis for Five Factor Personality Traits Scale**

**Figure 3. Confirmatory Factor Analysis for Five Factor Personality Traits Scale**

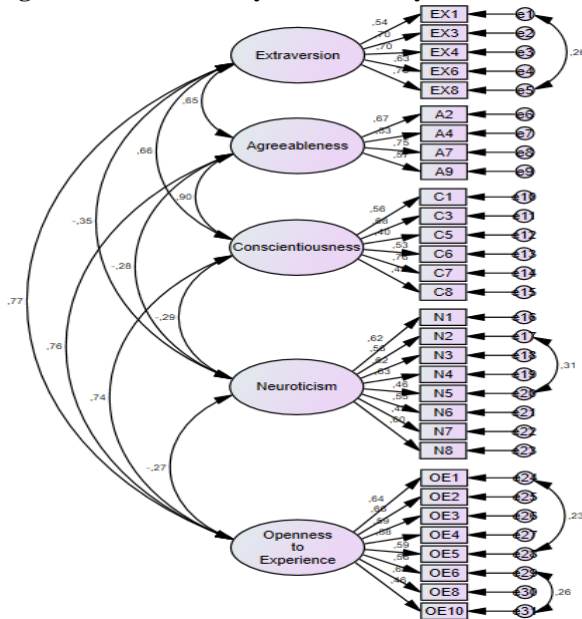


Figure 3 demonstrates the confirmatory analysis for personality traits scale dimensions.

**Table 2. Absolute Fit Indices**

	Structural Model Values	Recommended Values
$\chi^2/df$	2.537	$\leq 5$
RMSEA	0.061	$\leq 0.08$
GFI	0.854	$\geq 0.90$
AGFI	0.828	$\geq 0.90$
CFI	0.848	$\geq 0.90$
IFI	0.850	$\geq 0.90$
TLI	0.832	$\geq 0.90$
SRMR	0.069	$\leq 0.10$

$\chi^2: 1065.547, df: 420, p:0.000$

The results of Structural Equation Modelling concerning the scale were significant with a p=0.000 value, according to Confirmatory Factor Analysis. Thirteen of the 44 items were eliminated due to low factor load, leaving 31 items that were discovered to be related to the 5-dimensional scale structure (Table 2). When the model was updated, factors that reduced the fit were identified, and a new covariance was established for residual values with high covariance. Table 2 illustrates the updated fit indices calculations for previously accepted fit indices values.

**Confirmatory Factor Analysis for Digital Trust Scale**

**Figure 4. Confirmatory Factor Analysis for Digital Trust Scale**

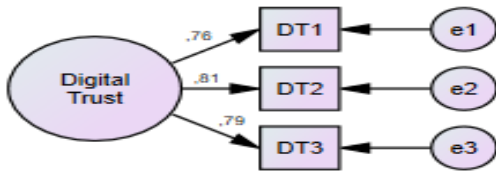


Figure 4 demonstrates the confirmatory analysis for digital trust scale dimensions.

Table 3. Results on the Measurement Model of the Digital Trust Scale

Factors	Expressions	Factor Loads	Standard Error	t Values	p Values
F1: Digital Trust $\alpha=0.829$	DT1	0.763	-	-	-
	DT2	0.809	0.067	14.505	***
	DT5	0.793	0.076	14.440	***

\*\*\*p<0.05.

The factor loads of the items are over 0.40, and all correlation linkages are significant, according to the correlations between the variables. When the digital trust scale's reliability was assessed, it was discovered that the scale's dimensions were greater than 0.60, indicating that it had a high degree of reliability.

**Confirmatory Factor Analysis for Technology Acceptance Scale**

Figure 5. Confirmatory Factor Analysis for Technology Acceptance Scale

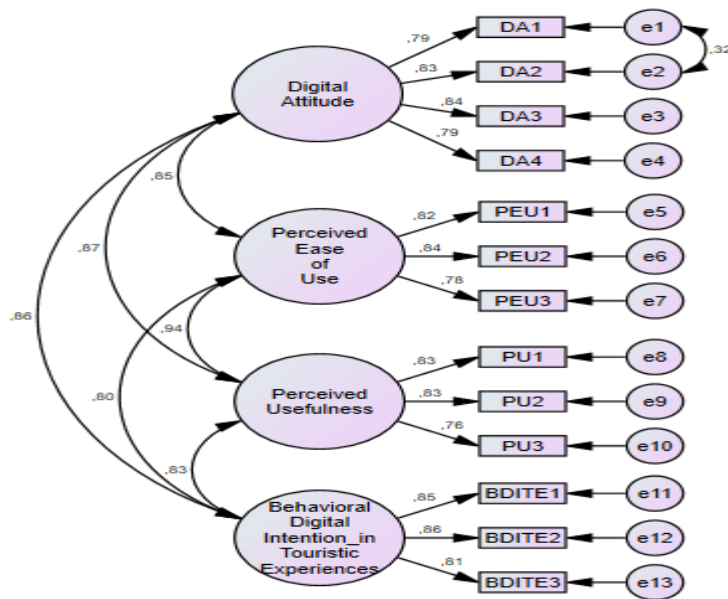


Figure 5 demonstrates the confirmatory analysis for technology acceptance scale dimensions.

Table 4. Absolute Fit Indices

	Structural Model Values	Recommended Values
$\chi^2/df$	4.378	$\leq 5$



RMSEA	0.078	≤ 0.08
GFI	0.917	≥ 0.90
AGFI	0.870	≥ 0.90
CFI	0.953	≥ 0.90
IFI	0.953	≥ 0.90
TLI	0.936	≥ 0.90
SRMR	0.032	≤ 0.10

$\chi^2$ : 253.946, df: 58, p:0.000

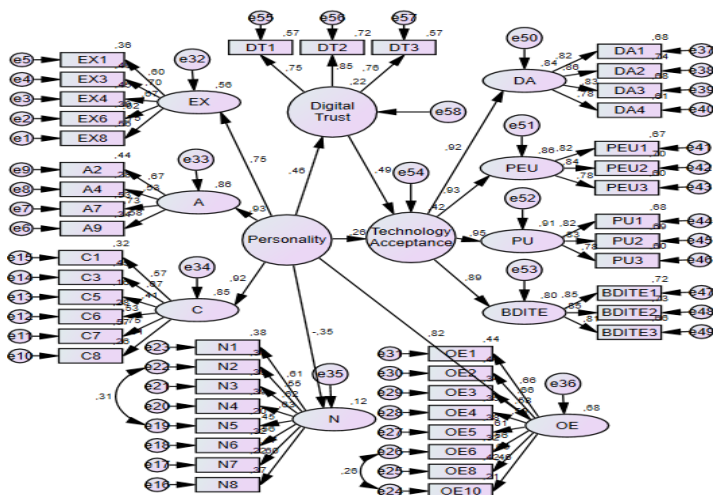
The structural equation modelling results of the scale are significant at the  $p=0.000$  level, according to the results of confirmatory factor analysis. The 13 scale pieces were all tied to a four-dimensional scale framework (Table 4). The model is in the process of being improved. The values that were approved for the fit indices in the subsequent renewed fit indices calculations are shown in Table 4.

**Correlation Analysis**

As a result of correlation analysis, there is a statistically significant and positive relationship between extraversion and digital trust ( $r=0.319, p0.05$ ), digital attitude ( $r=0.270, p0.05$ ), perceived ease of use ( $r=0.245, p0.05$ ), perceived usefulness ( $r=0.266$ ), and behavioural digital intention in touristic experiences ( $r=0.286, p0.05$ ). Agreeableness and digital trust ( $r=0.334, p0.05$ ), digital attitude ( $r=0.337, p0.05$ ), perceived ease of use ( $r=0.324, p0.05$ ), and perceived usefulness ( $r=0.340, p0.05$ ) all show significant variations. In touristic experiences, there is a statistically significant and favourable relationship between behavioural digital intention ( $r=0.289, p0.05$ ). There is a statistically significant and positive relationship between behavioural digital intention in touristic experiences ( $r=0.339, p0.05$ ) and conscientiousness/self-control ( $r=0.311, p0.05$ ), digital attitude ( $r=0.303, p0.05$ ), perceived ease of use ( $r=0.377, p0.05$ ), and perceived usefulness ( $r=0.345, p0.05$ ). There is a statistically significant and negative relationship between neuroticism and digital trust ( $r=-0.173, p0.05$ ), digital attitude ( $r=-0.158, p0.05$ ), perceived ease of use ( $r=-0.148, p0.05$ ), and perceived usefulness ( $r=-0.173, p0.05$ ) in tourism encounters. There is a statistically significant and positive relationship between openness to experiences and digital trust ( $r=0.257, p0.05$ ), between digital attitude ( $r=0.251, p0.05$ ), between perceived ease of use ( $r=0.247, p0.05$ ), and perceived usefulness ( $r=0.251$ ),  $p0.05$ , and among behavioural digital intent in touristic experiences ( $r=0.227, p0.05$ ). There is a statistically significant and positive relationship between digital trust and digital attitude ( $r=0.573, p0.05$ ), perceived ease of use ( $r=0.410, p0.05$ ), perceived usefulness ( $r=0.421, p0.05$ ), and behavioural digital intention in tourism experiences ( $r=0.468, p0.05$ ).

**Results and discussions**

**Figure 6. Research Model**



E: Extraversion, A: Agreeableness, C: Conscientiousness, N: Neuroticism, OE: Openness to Experience, DA: Digital Attitude, PE: Perceived Ease of Use, PU: Perceived Usefulness, BDITE: Behavioural Digital Intention in Touristic Experiences.

**Table 5. Results on the Research Model**

Hypothesis		Prediction	Standard Error	t	p	Situation
Personality Characteristics →Technology Acceptance	Impact	0.484	0.088	7.572	***	Acceptance
Personality Characteristics →Digital Trust→ Technology Acceptance	Direct Impact	0.258	0.080	4.535	***	Acceptance
	Indirect Impact	Confidence Interval		(0.148, 0.317)		Significant
<b>Compliance Values:</b> $\chi^2$ /df: 2.352, RMSEA: 0.057, GFI: 0.807, AGFI: 801, CFI: 0.855, IFI: .856, TLI: 0.846, SRMR: 0.061						

\*p<0.05.

First and foremost, the study looked at whether the independent variable had any impact on the dependent variable. Personality traits have a favourable and statistically significant effect on technology acceptance (=0.484, p0.05), according to the findings of the study. The mediating role in this impact was explored once the existence of a significant effect was discovered. Because the values in the 95 percent confidence interval do not contain 0 in the findings of the analysis, it is determined that there was a mediating role in this impact (0.148, 0.317). The type of agent was then determined by determining whether the direct effect was considerable. The direct effect was significant, and the effect coefficient dropped, according to the results of the investigation. As a result, the mediator was determined to be a partial mediator (=0.258, p0.05).

**Table 6. Results on the Research Model**

Hypothesis		Prediction	Standard Error	t	p	Situation
EX→TA	Impact	0.335	0.057	5.784	***	Acceptance
EX→DT→TA	Direct Impact	0.104	0.055	1.907	0.057	Not Acceptance
	Indirect Impact	0.234	Confidence Interval (0.152, 0.323)			Significant
<b>Compliance Values:</b> $\chi^2$ /df: 3.147, RMSEA: 0.072, GFI: 0.880, AGFI: 848, CFI: 0.929, IFI: 0.929, TLI: 0.918, SRMR: 0.046						

\*p<0.05.

After looking at the impact of personality qualities on technological adoption, the researchers looked into whether the sub-dimensions of personality traits had an impact on the dependent variable. The extraversion sub-dimension of personality traits was examined first. Extraversion had a statistically significant effect on technology acceptability (=0.335, p0.05), according to the analysis results. Because this effect was so large, researchers looked into whether it had a mediating influence. According to the results, the values in the 95 percent confidence interval of the generated model do not include 0. It is possible to conclude that the model has a mediating role based on these findings. It is clear that digital trust plays a key role in modulating the influence of extroversion on technology acceptance (0.152, 0.323). After determining that a mediating impact exists, the direct effect was investigated to determine the type of mediator. The findings of the analysis demonstrate that the direct influence is significant. It was determined that it was a partial mediator (=0.104, p0.05) since the effect coefficient reduced.

**Table 7. Results on the Research Model**

Hypothesis		Prediction	Standard Error	t	p	Situation
A→TA	Impact	0.462	0.105	6.401	***	Acceptance
A→DT→TA	Direct Impact	0.244	0.090	3.979	***	Acceptance
	Indirect Impact	0.219	Confidence Interval (0.140, 0.312)			Significant
<b>Compliance Values:</b> $\chi^2$ /df: 3.335, RMSEA: 0.075, GFI: 0.879, AGFI: 845, CFI: 0.928, IFI: 0.928, TLI: 0.916, SRMR: 0.046						

\*p<0.05.

Agreeableness, another sub-dimension of the independent variable, was examined after extraversion sub-dimension. It was discovered that compatibility has a statistically significant effect on technological

acceptability, according to this result. ( $p < 0.05$ ) ( $= 0.462$ ). Because the independent variable had a considerable impact on the dependent variable, the mediating role in this effect was investigated. The computed model's 95 percent confidence interval does not include a value of 0. This result indicates that this impact has a mediation role. It is clear that digital trust plays a key role in mitigating the influence of agreeableness on technological acceptance (0.140, 0.312). After determining the mediating role, the direct effect was studied in order to determine the type of mediating role. The findings of the analysis demonstrate that the mediator's direct effect was significant. The type of mediator is shown to be a partial mediator ( $= 0.244$ ,  $p < 0.05$ ) since the effect coefficient dropped.

**Table 8. Results on the Research Model**

Hypothesis		Prediction	Standard Error	t	p	Situation
C→TA	Impact	0.484	0.115	6.349	***	Acceptance
C→DT→TA	Direct Impact	0.283	0.097	4.585	***	Acceptance
	Indirect Impact	0.203	Confidence Interval (0.132, 0.281)			Significant
<b>Compliance Values:</b> $\chi^2/df$ : 3.301, RMSEA: 0.074, GFI: 0.871, AGFI: 838, CFI: 0.916, IFI: 0.916, TLI: 0.903, SRMR: 0.049						

\* $p < 0.05$ .

It was examined whether the responsibility, one of the independent variable's sub-dimensions, had an effect on the dependent variable. Responsibility was discovered to have a statistically significant impact on technological acceptance ( $= 0.484$ ,  $p < 0.05$ ). Following this finding, the possibility of a mediating role in this effect was investigated. It was discovered that the values in the computed model's 95 percent confidence interval do not include 0. According to the results a mediating role was found in the model. It is seen that the mediating role of digital trust in the effect of responsibility on technology acceptance is significant (0.132, 0.281). After deciding that a mediator has a role in this effect, the type of this mediator was examined. The results show that direct effect of the mediator is significant. Because the impact coefficient dropped, the type of mediator was determined to be partial mediator ( $= 0.283$ ,  $p < 0.05$ ).

**Table 9. Results on the Research Model**

Hypothesis		Prediction	Standard Error	t	p	Situation
N→TA	Impact	-0.208	0.060	-3.520	***	Acceptance
N→DT→TA	Direct Impact	-0.086	0.053	-1.717	0.086	Not Acceptance
	Indirect Impact	-0.124	Confidence Interval (-0.207, -0.045)			Significant
<b>Compliance Values:</b> $\chi^2/df$ : 3.010, RMSEA: 0.070, GFI: 0.867, AGFI: 837, CFI: 0.913, IFI: 0.913, TLI: 0.902, SRMR: 0.047						

\* $p < 0.05$ .

It was investigated whether another sub-dimension, neuroticism, had an effect on the dependent variable. Neuroticism had a statistically significant impact on technological acceptability ( $= -0.208$ ,  $p < 0.05$ ), according to the findings. After this result, it was examined whether there was a mediating role in the model. According to the values, the 95% confidence interval of the obtained model does not include 0. It can be said that there is a mediating role in the effect. It is seen that the mediating role of digital trust in the effect of neuroticism on technology acceptance is significant (-0.207, -0.045). After accepting the mediating role, the direct effect was examined to be significant in order to find the type of the mediator. The direct effect is not significant, hence it can be said that digital trust has a mediating role ( $= -0.086$ ,  $p > 0.05$ ), according to the results.

**Table 10. Results on the research model**

Hypothesis		Prediction	Standard Error	t	p	Situation
OE→TA	Impact	0.326	0.079	5.174	***	Acceptance
OE→DT→TA	Direct Impact	0.138	0.067	2.619	***	Acceptance

Indirect Impact	0.188	Confidence Interval (0.109, 0.273)	Significant
<b>Compliance Values:</b> $\chi^2/df$ : 2.841, RMSEA: 0.067, GFI: 0.873, AGFI: 845, CFI: 0.922, IFI: 0.922, TLI: 0.912, SRMR: 0.052			

\*p<0.05.

Finally, whether openness to experiences, one of the sub-dimensions of the independent variable, had an effect on the dependent variable was examined. Technology acceptance was found to be statistically significant when people were open to new experiences ( $\beta=0.326$ ,  $p<0.05$ ). After this result, the existence of a mediating role in this effect was examined. The values in 95% confidence interval of the obtained model did not include 0 and this means that in the model there is a mediator. It is seen that the mediating role of digital trust in the effect of openness to experiences on technology acceptance is significant (0.109, 0.273). After deciding on the mediating role, the mediator's type was investigated. Because the direct effect is substantial and the effect coefficient is decreasing, it can be said that digital trust partially mediates the relationship ( $\beta=0.138$ ,  $p<0.05$ ).

According to the results, hypotheses were rejected and accepted as below:

**H1:** Personality traits of individuals have a significant impact on technology acceptance in tourism experiences (**Accepted**).

**H2:** Digital trust mediates the relationship between personality traits and technology acceptance (**Accepted**).

**H2a:** Digital trust mediates the relationship between extraversion, sub-dimension of personality traits, and technology acceptance (**Accepted**).

**H2b:** Digital trust mediates the relationship between agreeableness, sub-dimension of personality traits, and technology acceptance (**Accepted**).

**H2c:** Digital trust mediates the relationship between conscientiousness, sub-dimension of personality traits, and technology acceptance (**Accepted**).

**H2d:** Digital trust mediates the relationship between neuroticism, sub-dimension of personality traits, and technology acceptance (**Accepted**).

**H2e:** Digital trust mediates the relationship between openness to experiences, sub-dimension of personality traits, and technology acceptance (**Accepted**).

## Conclusion

Digitalization is increasing its effects in the individual and social areas day by day. The digital revolution is showing its effects all over the world and in business life. The development of digital technological tools and applications reveals a rapid change process. In this context, business life, working styles, business practices and economic structures are in a digital transformation process. Organizations are changing their business structures and business models with different new digital technologies such as social networks, big data, mobile applications, and the internet of things.

Organizations that can adapt these rapid change processes in the technological environment and initiate change with strategic decisions continue to exist. At this point, it is important for organizations and individuals to adapt to new digital technologies and to accept these technologies. Individuals' acceptance of technology and their adaptation to technological processes enable digital transformation to take place effectively and quickly. Confidence can be expressed as an individual's realization of an action without the necessary complete knowledge before taking action. The basis of trust is that the individual has asymmetric information. At this point, the individual acts without knowing anything exactly and clearly about the information held by the other party and by taking risks. In this context, trust has individual, social and psychological aspects.

With the digital transformation process experienced today, the development and intensive use of technological tools and applications, social networks, mobile technologies, big data and the internet of things affect individuals and societies. Individuals have become a part of this digital age. Networks, information-creating environments, information and communication technologies have surrounded individuals. Digital trust is important as these digital technological tools and applications are available around the individual.

In this study, research was conducted within the framework of technology acceptance model. The researchers looked into whether digital trust plays a role in the relationship between personality factors and

technological acceptance. In this context, a model for determining the importance of digital trust in the relationship between personality traits and technological adoption has been established. Although there are researches in the relevant literature that deal with personality traits and technology adoption, none have looked at whether digital trust plays a mediating function in the relationship between the two variables. At this stage, the study can be said to have made a contribution to the discipline. Digital trust, according to the study's findings, plays a moderating function in the relationship between personality attributes and technological acceptance.

The research found a statistically significant and favourable association between extroversion and digital trust, digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention in tourism encounters, according to correlation analysis results. Extroverted people were also shown to have a more favourable attitude regarding technology acceptance. This circumstance can be explained by the fact that extroverted people are open to new ideas and interactions, as well as daring and curious.

In tourism experiences, it was discovered that agreeableness and digital trust, digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention have a statistically significant and favourable association. Individuals with this trait are more moderate towards new technologies and behave collaboratively in technology acceptance because they have characteristics such as being moderate towards others, communicating, being reliable, helpful, thinking of others, and cooperating.

The findings reveal that in touristic experiences, there is a statistically significant and positive association between responsibility and digital trust, digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention. The individual with the responsibility personality trait is reliable, disciplined, coordinated, organized and controlled. It can be stated that the individual with the responsibility personality trait is well organized in technology acceptance and acts with a sense of duty.

Another finding of the study is that neuroticism affects digital trust, digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention in touristic encounters in a negative and statistically significant way. Since the neuroticism feature includes the state of being anxious, stressed and insecure, it has been found that the emotional state of the individuals with this feature regarding technology acceptance is negative. It is seen that the individual with the neurotic personality trait has a negative attitude towards new digital technologies as he experiences insecurity. In touristic experiences, it was discovered that openness to experiences has a positive and statistically significant association with digital trust, digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention. Individuals with openness to experience feature are intellectually curious individuals. The positive effect of these individuals on technology acceptance is due to their curiosity and interest in discovering and using new digital technologies. In touristic encounters, the study discovered a statistically significant and favourable association between digital trust and digital attitude, perceived usefulness, perceived ease of use, and behavioural digital intention. In this case, it can be said that the acceptance of technology by individuals who have digital trust is positive and it is easier for individuals who have developed a sense of digital trust to accept new digital technologies.

In line with the results obtained from the structural equation model; it has been found that personality traits have a statistically significant and positive effect on technology acceptance. It has been revealed with statistical analysis that digital trust has a partial mediating role on this relationship. Extraversion has a statistically significant effect on technology acceptance. The results show that digital trust has a partial mediating role in the effect of extroversion on technology acceptance. It was found that agreeableness had a statistically significant effect on technology acceptance. Digital trust has a partial mediating role in the impact of compliance on technology acceptance. Technology acceptance is statistically significant when it comes to responsibility. It has been discovered that digital trust has a partial mediation function in the relationship between conscientiousness and technology acceptance. From the personality traits, neuroticism was discovered to have a statistically significant impact on technological acceptance. According to the results, digital trust is found to mediate fully the relationship between neuroticism and technology acceptance. Openness to experiences has a statistically significant impact on technology acceptance. It has been determined that digital trust has a partial mediating role in the effect of openness to experiences on technology acceptance.

Digital trust appears to have a partly mediating impact on the relationship between personality characteristics and technological adoption, according to the findings. In this case, firms should consider individuals' psychological attributes while building new technology. It is necessary to apply new

technological models and create business strategies in communication with individuals who are extroverted, adaptable, responsible and open to experience. Other variables that affect the digital trust formation of individuals with these personality traits regarding the technological applications used by the business should be investigated.

In the digital age, organizations are trying to reach new markets and new customers by developing new business models. Organizations gain sustainable competitive advantage by creating new values with digital transformation. In this context, tourism organizations are also trying to catch up with the digital change and transformation process by using different digital technologies and applications. Organizations must take action to build digital trust in their customers. They can perform different activities for the adoption and widespread use of digital technologies by individuals. Social responsibility projects can be carried out to raise awareness of individuals on this issue. At the beginning of these projects, digital literacy training can take place. Organizations should promote the digital applications they use to their target audiences by organizing different advertising and promotion days.

Tourism organizations can cooperate with local and international governments for digital services and applications. In addition, future researchers may conduct different studies on the concepts discussed in this study. In this direction, it is thought that this study can guide the relevant decision mechanisms in creating different and new strategies for businesses especially in the upcoming metaverse era.

## References

- Arthur, W., and Graziano, W.G. (1996). The five-factor model, conscientiousness and driving accident involvement. *Journal of Personality*, 64(3), 35-42. <https://doi.org/10.1111/j.1467-6494.1996.tb00523.x>.
- Alford, P., and Jones, R. (2020). The lone digital tourism entrepreneur: knowledge acquisition and collaborative transfer. *Tourism Management*, 81, 104139, 1-12. <https://doi.org/10.1016/j.tourman.2020.104139>.
- Allport, G.W. (1961). *Pattern and growth in personality*, Holt, Rinehart and Winston, New York, NY.
- Alomary, A., and Woollard, J. (2015). How is technology accepted by users? a review of technology acceptance models and theories [oral communication]. In *IRES 17th international conference, London, United Kingdom*. <https://eprints.soton.ac.uk/382037/>.
- Barnett, T., Pearson, A.W., Pearson, R., and Kellermanns, F. W.(2015). Five-factor model personality traits as predictors of perceived and actual usage of technology. *European Journal of Information Systems*, 24 (4), 374-390. <https://doi.org/10.1057/ejis.2014.10>.
- Capriello, A., and Riboldazzi, S. (2020). How can a travel agency network survive in the wake of digitalization? Evidence from the Robintur case study. *Current Issues in Tourism*, 23 (9), 1049–1052. <https://doi.org/10.1080/13683500.2019.1590321>.
- Cattell, R.B. (1965), *The scientific analysis of personality*, Penguin, Baltimore, MD.
- Chong, A., Ooi, K-B., Lin, B., and Tan, B-I., (2010). Online banking adoption: An empirical analysis. *International Journal of Bank Marketing*, 28 (4), 267-287. <https://doi.org/10.1108/02652321011054963>.
- Costa, P. T., McCrae, R., and Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: A revision of the NEO Personality Inventory. *Personality and Individual Differences*, 12, 887–898. [https://doi.org/10.1016/0191-8869\(91\)90177-D](https://doi.org/10.1016/0191-8869(91)90177-D).
- Digman, J.M. (1990). Personality structure: emergence of the five-factor model. *Annual Review of Psychology*, 41, 417-40. <https://doi.org/10.1146/annurev.ps.41.020190.002221>.
- Dillon, A. (2001). User acceptance of information technology, in: W. Karwowski (Ed.), *Encyclopedia of Human Factors and Ergonomics*, Taylor and Francis, London, UK, 2001, 1–6.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology, *MIS Quarterly*, 13 (3), 319–340. <https://doi.org/10.2307/249008>.

- Dutta, K., Sharma, K., and Goyal, T. (2021). Customer's digital advocacy: the Impact of reviews and influencers in building trust for tourism and hospitality services, *Worldwide Hospitality and Tourism Themes*, 13 (2), 260-274. <https://doi.org/10.1108/WHATT-09-2020-0123>.
- Evinc, S. G. (2004). *Maternal personality characteristics, affective state, and psychopathology in relation to children's attention deficit and hyperactivity disorder and comorbid symptoms*. Unpublished Phd. thesis, Middle East Technical University, Institute of Social Sciences, Turkey.
- Gahare, S. (2022). Will The Metaverse Revolutionize The Hospitality Industry? Forbes. <https://www.forbes.com/sites/forbestechcouncil/2022/01/10/will-the-metaverse-revolutionize-the-hospitality-industry/?sh=140b201725e7>.
- Hadjielias, E., Christofi, M., Christou, P., and Hadjielia Drotarova, M. (2021). Digitalization, agility, and customer value in tourism. *Technological Forecasting and Social Change*. 121334. <https://doi.org/10.1016/j.techfore.2021.121334>.
- Harb, Y., and Alhayajneh, S. (2019). *Intention to use BI tools: integrating technology acceptance model (tam) and personality trait model*. 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT). <https://doi.org/10.1109/jeeit.2019.8717407>. APR 09-11, 2019. Amman, Jordan.
- Heller, D., Judge, T., and Watson, D. (2002). The confounding role of personality and trait effectivity in the relationship between job and life satisfaction. *Journal of Organizational Behaviour*, 23 (7), 815-35. <https://doi.org/10.1002/job.168>.
- Hui-Yi, L. (2014). Quick response codes around us: personality traits, attitudes toward innovation, and acceptance. *Journal of Electronic Commerce Research*, 15(1), 25-39.
- John, O.P., and Srivastava, S. (1999). The big-five trait taxonomy: History, measurement, and of road accident involvement, in Underwood, G. (Ed.), *Traffic and Transport Psychology*, Elsevier, Oxford, 215-27.
- John, O. P., Donahue, E. M., and Kentle, R. L. (1991). Big five inventory. *Journal of Personality and Social Psychology*.
- Kaplan, H. E. (2018). *Research on the impacts of the unified theory of acceptance and use of technology-2 and trust factors on mobile banking user intent and behaviour*. Phd Thesis. Niğde Ömer Halisdemir University, Institute of Social Sciences. Turkey.
- Kas, E. (2015). *The examination of online hotel reservation websites through technology acceptance model*. Master's Thesis. Balıkesir University, Institute of Social Sciences. Turkey.
- Kim, M.J., Chung, N., and Lee, C.-K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management*, 32(2), 256–265. <https://doi.org/10.1016/j.tourman.2010.01.011>.
- Kiong, L.V. (2022). *Metaverse Made Easy: A Beginner's Guide to the Metaverse: Everything you need to know about Metaverse, NFT and GameFi*. 1-117, ISBN97988798340927.
- Lam, C., Law, R. (2019). Readiness of upscale and luxury-branded hotels for digital transformation. *International Journal of Hospitality Management*, 79, 60–69. <https://doi.org/10.1016/j.ijhm.2018.12.015>.
- Lee, J. D., and See, K. A. (2004). Trust in automation: Designing for appropriate reliance. *Human Factors*, 46(1), 50–80. [https://doi.org/10.1518/hfes.46.1.50\\_30392](https://doi.org/10.1518/hfes.46.1.50_30392).
- Lee, M.C. (2009). Factors influencing the adoption of internet banking: An integration of TAM And TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 130-141. <https://doi.org/10.1016/j.elerap.2008.11.00>.
- Maican, C.I., Cazan, A.M., Lixandriou, R.C., and Dovleac, L. (2019). A Study On Academic Staff Personality and Technology Acceptance: The Case of Communication and Collaboration Applications. *Computer and Education*, 128, 113-131. <https://doi.org/10.1016/j.compedu.2018.09.010>.

- Olver, J.M., and Mooradian, T.A. (2003). Personality traits and personal values: a conceptual and empirical investigation. *Personality and Individual Differences*, 35, 109-25. [https://doi.org/10.1016/S0191-8869\(02\)00145-9](https://doi.org/10.1016/S0191-8869(02)00145-9).
- Ozbek, V., Alniacik, U., Koc, F., Akkilic, E., and Kas, E. (2014). The impact of personality on technology acceptance: a study on smart phone users. *Procedia - Social and Behavioural Sciences*, 150, 541 – 551. <https://doi.org/10.1016/j.sbspro.2014.09.073>.
- Park, S. (2020). Multifaceted trust in tourism service robots, *Annals of Tourism Research*, 81. <https://doi.org/10.1016/j.annals.2020.102888>.
- Pacan Ozcan, H., Sabah Celik, S., and Ozer, A. (2019). Factors affecting the intention of mobile banking use of the individual banking customers, *Cankiri Karatekin University Journal of the Faculty of Economics and Administrative Sciences*, 9 (2) , 475-506. <https://doi.org/10.18074/ckuiibfd.590493>.
- Palácios, H., Almeida, M.H., and Sousa, M.J. (2021). A bibliometric analysis of trust in the field of hospitality and tourism, *International Journal of Hospitality Management*, 95, 102944, <https://doi.org/10.1016/j.ijhm.2021.102944>.
- Rauniar, R., Rawski, G., Yang, J., and Johnson, B. (2014). Technology acceptance model (tam) and social media usage: an empirical study on Facebook, *Journal of Enterprise Information Management* 27(1), 6–30. <https://doi.org/10.1108/JEIM-04-2012-0011>.
- Ramirez - Correa, P., Grandon, E.E., Alfaro-Perez, J., and Painen-Aravena, G. (2020). Personality types as moderators of the acceptance of information technologies in organizations: a multi-group analysis in Pls-Sem. *Sustainability*, 11 (14). <https://doi.org/10.3390/su11143987>.
- Rondan - Cataluna, F.J., Arenas - Gaian, J., and Ramirez-Correa, P.E. (2015). A comparison of the different versions of popular technology acceptance models, *Kybernetes*, 44 (5), 788–805. <https://doi.org/10.1108/K-09-2014-018>.
- Ryckman, R.M. (1997). *Theories of personality*, Brooks/Cole Publishing Company, London.
- Secer, H.S. (2017). İnsan kaynaklari alanina bloglar uzerinden bakmak nitel bir inceleme, *Yonetim ve Ekonomi*, 24 (3), 759-782. <https://doi.org/10.18657/yonveek.359941>.
- Seibert, S.E. and Kraimer, M.L. (2001). The five factor model of personality and career success. *Journal of Vocational Behaviour*, 58, 1-21. <https://doi.org/10.1006/jvbe.2000.1757>.
- Sindermann, C., Riedl, R., and Montag, C. (2020). Investigating the relationship between personality and technology acceptance with a focus on the smartphone from a gender perspective: results of an exploratory survey study, *Future Internet*, 12 (7), <https://doi.org/10.3390/fi12070110>.
- Sumer, N., Lajunen, T., and Ozkan, T. (2005). *Big five personality traits as the distal predictors theoretical perspectives* in Pervin, L. and John, O.P. (Eds), *Handbook of Personality: Theory and Research*, Guilford, New York, NY, 102-139.
- Sumer N. and Sumer H. C. (2005). Bes faktor kisilik ozellikleri olcegi (unpublished study).
- Tussyadiah, I. P., and Park, S. (2018). *Consumer evaluation of hotel service robots. In Information and Communication Technologies in Tourism 2018: Proceedings of the International Conference in Jönköping*, Sweden, January 24-26, 2018 (pp. 308-320). Springer International Publishing.
- Zollo, L., Rialti, R., and Marrucci, A.(2021). How do museums foster loyalty in tech-savvy visitors? The role of social media and digital experience, *Current Issues in Tourism*, <https://doi.org/10.1080/13683500.2021.1896487>.