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Examining The Experience and Interest in Using Digital Maps as A Tourism Communication Medium Among Visitors in Bantul Regency, Indonesia

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Abstract

This study aimed to determine audience interest in using interactive digital tourism maps to increase tourism destination literacy. The theory and concept of digital interactive tourist maps and Geographic Information Systems explain how navigation and information systems that were previously manual have become digital tourist communication media to make it easier for tourists to obtain information according to their needs. Conduct surveys to test and accept six hypotheses on the impact of digital map application trials on users, which include: the influence of affect on continuous usage, the influence of affect on user value, the effect of usability on affect, the effect of usability on continuous usage, the influence of usability on user value, and the impact of user value on continuous usage. The results show that the system's appearance and user value are influenced by its perceived value. The map also reveals that the system's usability affects its perceived value but does not affect its continuous usage. The perceived value of a system is tied to its overall performance. The practical and theoretical implications of this research are discussed, providing insights into how the results can be applied or influence practices in the field of The Performance Tourism Digital Interactive Map for tourists in the Mangunan tourist destination, Bantul Regency, Yogyakarta Indonesia. The study focused on the Mataram cultural tourism literacy model using interactive digital maps in the Mangunan tourism area, Bantul Regency, Yogyakarta Indonesia, highlighting the lack of research on its impact on tourism activity.

Keywords: Digital Maps, Interactive, Literacy, Tourist Destinations

1. Introduction

Bantul Regency, as one of the regencies in the Special Region of Yogyakarta, has a diversity of main attractions for tourists; it can be seen from the number of domestic and foreign tourists visiting the Bantul Regency. Based on data on tourist visits by regencies/cities in Yogyakarta, in 2019, the Bantul Regency contributed 8 million people, or around 28.29% (Prayitno et al., 2022; Suyoto et al., 2022). In 2020, due to the impact of the COVID-19 pandemic, the number of visits to DIY and to Bantul Regency fell to 10.83 million people and 2.3 million people. Bantul's contribution to total tourist arrivals in Yogyakarta decreased in 2019 but increased again in 2021

(Rahman & Hakim, 2024; S. T. Wibowo et al., 2020). Efforts to increase tourist visits, apart from increasing the attractiveness of tourist destinations and increasing online and offline promotional activities, also need to provide easy access for tourists through digital tourism maps (Kang et al., 2022; Li et al., 2020).

Currently, tourism promotion activities in Bantul Regency, both through various social media and websites and various attraction activities, are pretty good. However, the ease of online access for potential tourists to find facilities and infrastructure still needs improvement. The importance of digital tourism maps is part of the transformation of the tourism industry in developing information technology and provides convenience for tourists and potential tourists to learn about a destination. Interactive digital maps of tourism as a medium for delivering information on tourist destinations interactively for tourists and prospective tourists (Maquera et al., 2022).

Tourists, as customers of a tourism activity, carry out several stages or processes before they arrive or are at a destination (Poux et al., 2020). There are three processes that tourists follow when determining their trip to travel, namely before purchase (prepurchase), consumption (consumption), and after consumption (post-consumption) (Baran & Baran, 2022; Choi et al., 2022; Pawan Kumar et al., 2022). In the first process, (prospective) tourists will identify and evaluate a tourism product or travel package plan offered (O'Keefe et al., 2019). From this process, they will look for various things related to the products and services they will get on a trip. At this stage, potential tourists will seek and obtain information about meeting their needs when deciding to become tourists. In the second stage, tourists purchase a tour service package based on the information received (Hu & Li, 2023; Rahman & Hakim, 2024). Tourists will experience or gain experience of tourism activities in a tourist destination. At this stage, various activities and events will be followed or experienced by tourists who are part of fulfilling their needs as tourists. In the third stage (Suominen et al., 2018).

Tourists have finished following their activities as tourists by evaluating the information obtained before buying tourism products or services (Virto & López, 2020). This evaluation stage is closely related to whether tourists get services based on what has been conveyed through searching for product and service information. When tourism services match the information obtained, positive impressions and recommendations to tourists' families or colleagues will be given (Kang et al., 2022; Li et al., 2020). On the other hand, negative impressions can arise when tourists have an unpleasant experience or their needs are unmet. The three processes above suggest that the right, fast, and accurate tourism information system can determine whether tourists buy a tourism product. Rahman & Haki (2024), indicates that tourists will look for information about their travels, especially transportation, accommodation, and activities at the destination.

In fact, in the era of information technology, as it is today, tourists will use various media, including online media, to get information according to their needs. One uses an interactive digital tourism map (Digital Interactive Tourism Map) (Hu & Li, 2023; O'Keefe et al., 2019). An interactive and digital-based tourist map will be a bridge to accessing the information needed. Suppose a potential tourist destination can provide accurate information with the ease of tourism services with a digital system (Li et al., 2020). In that case, prospective tourists can decide to buy products and determine the Digital Interactive Tourism Map, which provides information about the presence, location, distance, and existing travel routes based on digital technology (Li et al., 2020; Palamas et al., 2023). Digital Interactive Tourism Map has a vital function: first, it provides information to users (tourists) about the location of tourist objects, facilitates travel to tourist sites, assists in providing information on the choice of tourist areas visited, and helps in planning trips (Pawan Kumar et al., 2022). The content on digital tourism maps can be described as follows: geographic areas, attractive tourist locations, transportation services, supporting facilities, and tourism services. In addition, the categories of information in the Digital Interactive Tourism Map are Accommodation, Cultural Features, Entertainment, Facilities, Recreation, Services, Transportation, Unique Features, and Conditions for tourists (Baran & Baran, 2022; Kang et al., 2022; Wu, 2020).

President Joko Widodo has designated Borobudur as a super-priority tourist destination. The District of Bantul Tourism Office responds to this policy with a Mataram cultural tourism concept in the Kotagede-Pleret-Giriloyo (Imogiri)-Mangunan area as a buffer for Borobudur tourism (S. T. Wibowo et al., 2020). The area is connected by the journey of Sultan Agung, the former of the Mataram Empire when searching for his burial place (Rahman &

Hakim, 2024). The concept of integrating this historical tourist area will be packaged in an interactive and innovative digital tourist destination (Syahidi et al., 2022). This is by the policy direction and strategy of the Ministry of Tourism and Creative Economy 2020-2024 point 6, namely encouraging research, innovation, and technology adoption with a plan of promoting research and innovation related to the development of creative tourism destinations that are oriented towards increasing added value and competitiveness as well as the adoption of information and communication technology, up-to-date effectively and efficiently (Damanik et al., 2022; Widianingsih et al., 2023).

People now use smartphones for navigation; millennials prefer to watch TV with cell phones (Liyushiana et al., 2022). Tourist attractions are promoted through the Internet. Internet use in the Indonesian economy in 2019 increased by \$40 Billion and is expected to triple by 2025 (Damanik et al., 2022). Searching for Indonesian travel information via Google increased by 39% in 2019, and Yogyakarta ranked 4th in Google searches for the traveling category. Tourism must now rule out Technology 4.0. The current tourism problem is the navigation system and information related to historical and cultural values, which are still manual. Traditional navigation systems such as paper maps or directional signs are no longer practical in this digital age (Lesmana & Sugiarto, 2021; J. M. Wibowo & Hariadi, 2024). Tourists find it challenging to identify tourist locations. Historical and cultural information related to the Mangunan is also not presented in a system that makes it easier for tourists (Budiarsa et al., 2021; Lesmana et al., 2022).

Information presented through interactive features, such as detailed information about each tourist location, optimal travel routes, previous user reviews, and recommendations for tourist attractions, can be the most essential part of this interactive digital map (Bijlani, 2021; Neyra-Paredes et al., 2021). Utilizing this interactive digital tourism map can positively contribute to the tourism system of Bantul Regency by increasing tourist satisfaction with the experience and creating a strong visual identity that distinguishes Bantul Regency tourist attractions from other places (S. T. Wibowo et al., 2020). In addition, with the help of this interactive tourism map, tourists are expected to have an exciting and informative experience with the tourist destinations of Bantul Regency. This map is the most essential part of modern tourism development to be an effective tool in promoting various tourist destinations, optimizing the overall trip, and increasing the attractiveness and satisfaction of the visit (Suominen et al., 2018).

Navigation systems and historical and cultural related information on electronic-based tourist maps may include: 1) web-based navigation systems used to inform history and culture; and 2) a digital-based tourist map application for mobile devices that provides various functions, including a navigation function that directs users to the tourist attractions of Mangunan correctly and quickly, 3) the function of historical and cultural information from the nearest tourist attraction in the Mangunan Tourism Area to plan the next stop and 4) route recommendations to a series of attractions.

A digital map prototype was made in the first year, and information data developed in this map will be inputted (Virto & López, 2020). Most of the tourist positions in the Ancient Mataram Kingdom have been identified and listed on the map (Nabila et al., 2021). The information collected has been included, although still at the general level. In this second year, as described in the first-year proposal, the research will continue to refine the information that needs to be conveyed to tourists (Manchanda & Deb, 2022; Rahman & Hakim, 2024). In addition to information that is literate, additional information supporting tourism, such as the location of places of worship, culinary delights, parking lots, souvenir shops (souvenirs), and so on, has yet to be included in this prototype. In addition, in its development, there are still locations that are part of the history of the Ancient Mataram Kingdom that have not been previously identified. In the second year, this information will be refined (Oliveira et al., 2022; Potdevin et al., 2021).

A geographic Information System (GIS) is a system that takes advantage of the advantages of spatial data and defines its relationship to information (Wei, 2021). This information can be in the location of an area, office address, and other information stored in a database. An essential part of GIS is data retrieval and storage. Spatial data from the data taken must be provided validly (Hu & Li, 2023). Spatial data storage is usually in vector form,

where the data stored is in the form of points, lines, and certain areas. Map display or presentation includes various forms, from printed maps to maps on mobile devices (Prabowo & Simanjuntak, 2021).

The reason for developing a Geographic Information System navigation application for tourist destinations in Mangunan is based on Android using the Waterfall method (Prabowo & Simanjuntak, 2021); apart from being easy to apply, this method has advantages when all system requirements can be defined entirely and correctly at the beginning of the project, so application design or development can be done, Running well and without problems (Hu & Li, 2023; Suominen et al., 2018). However, the disadvantage of using this method is that the next stage cannot be carried out correctly when one stage is blocked.

Some scholar indicate that tourist maps that can be accessed with smartphones can make it easier for tourists to obtain various tourism information and increase the income of people around tourist objects (Firmansyah et al., 2023; Nabila et al., 2021; Pawan Kumar et al., 2022; Wu, 2020). According to Baran & Baran (2022), the mapbased public service information model, mobile devices can quickly, and reasonably. On the other hand, the information desired by tourists will be better so that tourists are interested in visiting. In addition, every existing view will attract investors who want to invest in helping tourism development (Wei, 2021).

From the studies before, the researchers found a tendency for studies on interactive digital tourism maps to be carried out regarding making systems and their effects on tourists. During the tracking by researchers, no research has observed aspects of increasing literacy from an interactive digital tourism map on tourist activity, specifically the literacy of Mataram culture. Herein lies the novelty of this research. This research begins with exploring the community's need for Mataram cultural literacy through the application of technology-based media 4.0 as a demonstration of the system in the community, specifically for the Mataram historical cultural tourism manager. The study aims to combine tourism, historical value literacy, and Geographic Information System (GIS) technology in a Digital Interactive Tourism Map in Mangunan, Indonesia. It seeks to increase tourist visits and pass on historical value through interactive virtual technology innovations, aiding the District of Bantul Tourism Office program in building the tourist area. The study also aims to improve the economy of the tourism object management community and surrounding areas.

2. Method

This research employs a quantitative method centered around a survey of users trialing digital map applications to examine six specific hypotheses. The survey is designed to collect data on user experiences and perceptions, focusing on the following hypotheses: (1) effects on sustainable use, (2) effects on user value, (3) usability's impact on effects, (4) usability's impact on sustainable use, (5) usability's impact on user value, and (6) user value's impact on sustainable use (Li et al., 2020; Manchanda & Deb, 2022). Participants are selected to ensure a diverse and representative sample, and the survey includes questions that quantify user satisfaction, perceived value, usability, and their intentions for continued use (Boboye & Taoheed, 2021). The collected data is then statistically analyzed to identify patterns and correlations that support or refute the proposed hypotheses (Prabowo & Simanjuntak, 2021).

The quantitative approach allows for objective measurement and analysis, providing a robust framework to assess the relationships between usability, user value, effects, and sustainable use (Elsamadony et al., 2022). Statistical tools such as regression analysis and structural equation modeling (SEM) are employed to determine the strength and significance of these relationships. By analyzing numerical data from a substantial user base, the study aims to produce generalizable findings that can inform improvements in digital map application design and functionality, ultimately contributing to enhanced user experience and long-term engagement (Boboye & Taoheed, 2021).

2.1 Data and Analysis Collection

The respondents of this study were tourists in Mangunan, Bantul Regency, Yogyakarta, Indonesia. The number of respondents was 126 people using the survey method. Respondents were asked to respond to 45 statements to measure four variables: Usability, Effect, User value, and Continuance usage. Each respondent answers the level of agreement for each statement. The degree of agreement is based on the Likert scale 5-point equidistance expressed ordinally in the choice of strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). Each indicator is a reflexive indicator that determines one aspect of latent variables (Boboye & Taoheed, 2021; Elsamadony et al., 2022).

Data analysis was performed using SmartPLS, the reason for using SmartPLS is because this application can be used for all data scales, does not require many assumptions, the sample required does not have to be large and can be used to build relationships that do not have a theoretical basis, or for testing propositions can also be used for structural modeling with reflexive indicators (Ramayah et al., 2017).

Table 1:1	Latent V	'ariables
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 Usability Affect User Value 	No	Latent Variables
 Affect User Value 	1.	Usability
3. User Value	2.	Affect
	3.	User Value
4. Continuous Usage	4.	Continuous Usage

The 39 reflexive indicator statements form 8 latent variables, which are the number indirectly observed, to construct hypotheses.

Hypotheses:

H1: the influence of affect on continuous usage

H2: the impact of affect on user value

H3: the effect of usability on affect

H4: the effect of usability on continuous usage

H5: the influence of usability on user value

H6: the impact of user value on continuous usage.

This study uses the outer model analysis and convergent validity. The Outer model analysis is to determine the relationship between latent variables and their indicators, or it can be said that the outer model defines how each indicator relates to its latent variables (Wahyudi & Yusra, 2021). Three measurement criteria were used in the data analysis technique using SmartPLS to assess the model. The three measurements are Convergent validity, reliability tests (Composite reliability and Cronbach Alpha), AVE values, and Discriminant validity (Boboye & Taoheed, 2021).

Convergent validity is used to prove that the respondent can understand the questions on each latent variable in this study in the same way as the researcher intended (Meivira, 2022). The indicator is valid if the factor loading value is above 0.7 (original sample value), although in the empirical experience of research, the loading factor value of 0.5 is still acceptable, even though some experts tolerate the number 0.4. After applying the convergent validity (multistep validity test and multistep deletion of invalid item), total of 7 items were deleted, namely Easy Trip Planning (AFF01), Understanding Application Content (AFF02), Menu required (AFF10), Writing Readability (USA06), No special knowledge required (USA13), Ease of Installation (USA15), Meet the sense of security (USV09), which has value < 0.7.

The outer Model Analysis and Convergent Validity are crucial for validating and optimizing design and research models, ensuring the reliability and accuracy of results (Jannah & Hazriyanto, 2019). These techniques enable economical testing and optimization of multiple design concepts before production, increasing confidence in performance and reducing costs. In intelligence agencies, they improve objectivity and quality, reducing cognitive biases and increasing threat assessment accuracy (Carlson & Herdman, 2022). In the private sector, they are

essential for co-creating value with customers and ensuring innovations meet market needs. Outer Model Analysis assesses latent constructs' convergent and discriminant validity, ensuring positive correlation and explanation of variance in indicators (Moreno-Llamas et al., 2020). Convergent validity is essential in educational settings, clinical research, and benefit transfer studies, helping refine skill models and improve predictive models of student performance. These techniques provide a robust framework for validating models and ensuring research and design efforts are reliable and applicable in real-world scenarios (Boboye & Taoheed, 2021).

3. Results and Discussion

3.1 Outer Loading

The following table shows the estimated outer loading test calculation results using SmartPLS. From the output, it can be seen that all items have a loading factor value above 0.5 (Carlson & Herdman, 2022) (see the Original Sample column). With this, the items are valid.

	Table	e 2: Outer Loa	ding Test		
	Original	Sample	Standard Deviation	T Statistics	P Voluos
				(0/STDEV)	values
AFF03 <- Affect	0.736	0.734	0.048	15.282	0
AFF04 <- Affect	0.834	0.835	0.028	29.354	0
AFF05 <- Affect	0.775	0.775	0.042	18.571	0
AFF06 <- Affect	0.866	0.866	0.022	38.74	0
AFF07 <- Affect	0.878	0.876	0.023	38.178	0
AFF08 <- Affect	0.82	0.818	0.038	21.785	0
AFF09 <- Affect	0.839	0.837	0.034	24.907	0
AFF11 <- Affect	0.757	0.756	0.04	19.022	0
AFF12 <- Affect	0.858	0.857	0.03	28.354	0
COU01 <- Continuous	0.070	0.05	0.000	2 0 <0 t	0
Usage	0.872	0.87	0.029	29.694	0
Usage	0.905	0.904	0.02	45.353	0
COU03 <- Continuous					
Usage	0.891	0.89	0.025	36.29	0
USA01 <- Usability	0.76	0.759	0.04	19.235	0
USA02 <- Usability	0.786	0.787	0.035	22.627	0
USA03 <- Usability	0.762	0.76	0.037	20.583	0
USA04 <- Usability	0.839	0.838	0.028	30.001	0
USA05 <- Usability	0.721	0.72	0.048	14.939	0
USA07 <- Usability	0.753	0.754	0.046	16.528	0
USA08 <- Usability	0.816	0.816	0.037	22.017	0
USA10 <- Usability	0.831	0.829	0.029	29.083	0
USA11 <- Usability	0.806	0.804	0.038	21.385	0
USA12 <- Usability	0.828	0.825	0.032	25.974	0
USV01 <- User Value	0.751	0.751	0.041	18.498	0
USV02 <- User Value	0.702	0.699	0.054	12.917	0
USV03 <- User Value	0.795	0.796	0.035	22.821	0
USV04 <- User Value	0.807	0.807	0.03	26.98	0
USV06 <- User Value	0.849	0.847	0.027	31.279	0
USV07 <- User Value	0.857	0.858	0.032	26 444	0
USV08 <- User Value	0.858	0.857	0.024	35 458	0
AFF07 <- Affect $AFF08 <- Affect$ $AFF09 <- Affect$ $AFF09 <- Affect$ $AFF11 <- Affect$ $AFF12 <- Affect$ $COU01 <- Continuous$ $Usage$ $COU02 <- Continuous$ $Usage$ $COU03 <- Continuous$ $Usage$ $USA01 <- Usability$ $USA02 <- Usability$ $USA03 <- Usability$ $USA03 <- Usability$ $USA04 <- Usability$ $USA05 <- Usability$ $USA07 <- Usability$ $USA08 <- Usability$ $USA08 <- Usability$ $USA01 <- Usability$ $USA01 <- Usability$ $USA03 <- Usability$ $USA10 <- Usability$ $USA11 <- Usability$ $USV01 <- User Value$ $USV03 <- User Value$ $USV04 <- User Value$ $USV04 <- User Value$ $USV06 <- User Value$ $USV06 <- User Value$ $USV06 <- User Value$ $USV06 <- User Value$ $USV07 <- User Value$ $USV06 <- User Value$	0.878 0.82 0.839 0.757 0.858 0.872 0.905 0.891 0.76 0.766 0.762 0.839 0.721 0.753 0.816 0.831 0.806 0.828 0.751 0.702 0.795 0.807 0.849 0.857 0.858	0.876 0.818 0.837 0.756 0.857 0.87 0.904 0.89 0.759 0.787 0.76 0.838 0.72 0.754 0.816 0.829 0.804 0.825 0.751 0.699 0.796 0.807 0.847 0.858 0.857	0.023 0.038 0.034 0.04 0.03 0.029 0.02 0.025 0.04 0.035 0.037 0.028 0.048 0.046 0.037 0.028 0.046 0.037 0.029 0.038 0.037 0.029 0.038 0.037 0.029 0.038 0.032 0.041 0.054 0.035 0.035 0.032 0.021 0.029 0.022 0.024	38.178 21.785 24.907 19.022 28.354 29.694 45.353 36.29 19.235 22.627 20.583 30.001 14.939 16.528 22.017 29.083 21.385 25.974 18.498 12.917 22.821 26.98 31.279 26.444 35.458	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

	Original	Sample	Standard Deviation	T Statistics	Р
	Sample (O)	Mean (M)	(STDEV)	(O/STDEV)	Values
USV09 <- User Value	0.867	0.866	0.022	40.062	0
USV10 <- User Value	0.813	0.811	0.038	21.287	0
USV11 <- User Value	0.804	0.803	0.032	25.476	0
USV12 <- User Value	0.809	0.808	0.034	23.58	0
USV13 <- User Value	0.805	0.806	0.033	24.27	0

A reliability test is a tool to measure a questionnaire, which is an indicator of a variable or construct. A measuring instrument or instrument in the form of a questionnaire can provide stable or constant measurement results if the instrument is reliable. The reliability of the research instrument in this study was tested using composite reliability and Cronbach's Alpha coefficient. A construct is said to be trustworthy if the value of composite reliability and Cronbach's alpha is above 0.70 (Carlson & Herdman, 2022). Meanwhile, according to Elsamadony et al., (2022) the instrument is said to be reliable if the Composite reliability value is 0.6 for exploratory research and Cronbach's alpha 0.6 for exploratory research. The following are data analysis results from composite reliability testing and Cronbach alpha:

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Affect	0.938	0.94	0.948	0.671
Continuous Usage	0.868	0.871	0.919	0.791
Usability	0.933	0.935	0.943	0.626
User Value	0.952	0.953	0.958	0.658

The test results based on the output table 4 show that the composite reliability and Cronbach's alpha results show a satisfactory value; namely, the value of each variable is above the minimum value of 0.60. This shows the consistency and stability of the instrument used are high. In other words, this study's constructs or variables have become a fit measuring tool, and all the questions used to measure each construct have good reliability.

The AVE value can describe the amount of variance or the diversity of manifest variables that the latent construct can contain. For the ideal in the AVE, which is 0.5, the convergent validity is good, meaning that the latent variable can explain the average of more than half the variance of the indicators. The AVE criteria for a valid variable must be above 0.50 (Boboye & Taoheed, 2021). The results of the SmartPLS output can be seen in the output above (see the Average Variance Extracted (AVE) column). The production shows that all variables have an AVE value of more than 0.5, so these variables have good validity (Meivira, 2022).

Discriminant validity proves that the questions on each latent variable are straightforward from respondents who answer questions on other latent variables, especially regarding the question's meaning (Li et al., 2020; Manchanda & Deb, 2022). Discriminant validity is met if the average variance extracted (AVE) of the extracted average variance must be higher than the correlation involving the latent variable. Discriminant validity shows that the latent construct predicts whether the value of the construct is better than the value of the other constructs by looking at the correlation value of the construct on the cross-loadings (Prabowo & Simanjuntak, 2021). Several ways to see discriminant validity are as follows:

3.1.1 See the value of Cross loading

Discriminant validity can be measured by looking at the value of cross-loading (Boboye & Taoheed, 2021). Suppose all indicators have a greater correlation coefficient with each construct compared to the value of the correlation coefficient of the indicator in the construct block in the other column. In that case, it is concluded that each indicator in the block is a constructor of the construct in that column.

	Affect	Continuous Usage	Usability	User Value
AFF03	0.736	0.514	0.632	0.648
AFF04	0.834	0.646	0.657	0.699
AFF05	0.775	0.561	0.591	0.68
AFF06	0.866	0.586	0.638	0.72
AFF07	0.878	0.673	0.708	0.74
AFF08	0.82	0.64	0.714	0.705
AFF09	0.839	0.675	0.672	0.677
AFF11	0.757	0.71	0.744	0.827
AFF12	0.858	0.641	0.719	0.735
COU01	0.658	0.872	0.577	0.703
COU02	0.73	0.905	0.676	0.771
COU03	0.666	0.891	0.646	0.708
USA01	0.544	0.508	0.76	0.622
USA02	0.616	0.576	0.786	0.663
USA03	0.646	0.564	0.762	0.685
USA04	0.627	0.547	0.839	0.67
USA05	0.563	0.464	0.721	0.578
USA07	0.721	0.673	0.753	0.716
USA08	0.709	0.659	0.816	0.738
USA10	0.715	0.572	0.831	0.759
USA11	0.643	0.484	0.806	0.638
USA12	0.721	0.547	0.828	0.682
USV01	0.666	0.666	0.771	0.751
USV02	0.709	0.635	0.753	0.702
USV03	0.74	0.644	0.739	0.795
USV04	0.749	0.659	0.744	0.807
USV06	0.799	0.676	0.691	0.849
USV07	0.773	0.671	0.695	0.857
USV08	0.739	0.681	0.664	0.858
USV09	0.735	0.707	0.678	0.867
USV10	0.654	0.624	0.646	0.813
USV11	0.632	0.594	0.664	0.804
USV12	0.689	0.749	0.654	0.809
USV13	0.612	0.644	0.636	0.805

Table 4: Cross Loading Test

From the output (table 5), it can be seen that most indicators have a more significant correlation coefficient with each of its variables compared to the correlation coefficient value of the indicator with other variables, so it is concluded that each indicator in the block is a constituent of the variable or construct in the column.

3.1.2 Comparing the root values of AVE

Discriminant validity was then measured by comparing the AVE root value of each construct with the correlation between the construct and other constructs in the model. Suppose the square root value of AVE for each construct is greater than the correlation value between constructs and other constructs in the model. In that case, it has an excellent discriminant validity value. The AVE root value is shown on the diagonal of the matrix (table 6).

Table 5: Discriminant Validity						
	Affect	Continuous Usage	Usability	User Value		
Affect	0.819					
Continuous Usage	0.771	0.89				
Usability	0.828	0.713	0.791			
User Value	0.876	0.819	0.858	0.811		

Based on the results (table 6), it can be seen that the AVE root value of each variable is higher, and some variables are lower than the correlation value between that variable and other variables in the model. According to the AVE root test, the model does not have good discriminant validity (Prabowo & Simanjuntak, 2021). Because, based on the Convergent Validity test and the reliability test, appropriate items and variables have been obtained, the Discriminant validity analysis using the Cross loading value has shown promising results, and the AVE value has met the requirements, the PLS-SEM analysis is still feasible to continue (Li et al., 2020; Manchanda & Deb, 2022). Testing of the inner model or structural model is tested to see the value of R Square and test the influence between variables.

3.1.3 R Square Analysis

This analysis determines the percentage of endogenous construct variability, which can be explained by exogenous construct variability. This analysis also seeks to find out the goodness of the structural equation model. The greater the R-square number, the greater the exogenous variable can explain the endogenous variable, so the structural equation is better.

	Table 6: R Square Test		
	R Square	R Square Adjusted	
Affect	0.686	0.683	
Continuous Usage	0.683	0.675	
User Value	0.824	0.821	

Based on the output (table 7), the contribution of usability to the affect factor is 68.6%, while other variables outside the model studied explain the rest. The contribution of usability, effect, and user value to the continuous usage factor is 68.3%, while other variables outside the model studied explain the rest. The contribution of usability and effect to the user value factor is 82.4%, while other variables outside the model studied explain the rest. The results of R2 above 0.67 for endogenous latent variables in the structural model can be said to have a strong influence.

In the hypothesis testing stage, whether there is a significant effect between the independent variables and the dependent variable will be analyzed (Li et al., 2020). The proposed hypothesis is tested by looking at the path coefficients, which show the parameter coefficients and the statistical significance value. The significance of the estimated parameters can provide information about the relationship between research variables. The limit for rejecting and accepting the proposed hypothesis is using a probability of 0.05.

Table 7: Hypothesis Test Result						
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	
Affect -> Continuous Usage	0.238	0.241	0.112	2.114	0.035	
Affect -> User Value	0.527	0.532	0.067	7.928	0	
Usability -> Affect	0.828	0.831	0.031	26.62	0	

Usability -> Continuous Usage	-0.031	-0.035	0.105	0.298	0.766
Usability -> User Value	0.422	0.417	0.078	5.423	0
User Value -> Continuous Usage	0.638	0.641	0.125	5.085	0

Table 8 explains the effect of Continuous usage. It can be seen from the Path Coefficient output that the value of t count > t table (2.114 > 1.96), so Ho is rejected. Effect affects User Value. It can be seen from the Path Coefficient output that the value of t count > t table (7.928 > 1.96), so Ho is rejected. Usability affects Affect. It can be seen from the Path Coefficient output that the value of t count > t table (2.62 > 1.96), so Ho is rejected. Usability affects Affect. It can be seen from the Path Coefficient output that the value of t count > t table (2.62 > 1.96), so Ho is rejected. Usability does not affect Continuous Usage. It can be seen from the Path Coefficient output that the value of t count > t table (0.298 > 1.96), so Ho is rejected. Usability affects User Value. It can be seen from the Path Coefficient output that the value of t count > t table (5.423 > 1.96), so Ho is rejected. User Value Affects Continuous Usage. This can be seen from the Path Coefficient output that the value of t count > t table (5.085 < 1.96), so Ho is rejected.

The results from the study on the Performance Tourism Digital Interactive Map in Mangunan, Bantul Regency, Yogyakarta, Indonesia, indicate that the system's appearance and user value are significantly influenced by its perceived value. This suggests that users' overall impressions and the value they derive from using the digital map are closely linked to how valuable they perceive the system (Firmansyah et al., 2023; Nabila et al., 2021; Pawan Kumar et al., 2022; Wu, 2020). Elements such as the aesthetic design, ease of navigation, and interactive features likely contribute to this perceived value, enhancing the user experience and making the map more appealing and helpful to tourists (Hu & Li, 2023; Suominen et al., 2018).

Moreover, the study reveals that while the system's usability positively impacts its perceived value, it does not directly affect its continuous usage (Baran & Baran, 2022; Kang et al., 2022; Wu, 2020). This implies that even though users find the map easy to use and navigate, more than this factor is needed to ensure they will continue using it over time. Instead, the system's perceived value—encompassing factors like the quality of information, relevance, and user satisfaction—plays a more critical role in determining its overall performance and likelihood of sustainable use (Kang et al., 2022; Li et al., 2020). These findings highlight the importance of creating a user-friendly interface and ensuring that the content and features meet users' needs and expectations to maintain their engagement and continued use.

4. Conclusion

The Performance Tourism Digital Interactive Map for tourists in the Mangunan tourist destination, Bantul Regency, Yogyakarta Indonesia is as follows: (1) Affect (the user's feelings influenced by the appearance or image of the system) affects User Value (the user's subjective judgment is tied to the system); (2) Usability (Objective Performance of the system or Level of Convenience of the system)affects Affect (the user's feelings influenced by the appearance or image of the system); (3) Usability (Objective Performance of the system or Level of Convenience of the system) affects Affect (the user's feelings influenced by the appearance or image of the system); (4) Usability (Objective Performance of the system or Level of Convenience of the system) affects Objective Performance of the system or Level of Convenience of the system) has no effect on Continuous Usage; (5) Usability (Objective Performance of the system) is tied to the system or Level of Convenience of the system) affects User Value (the user's subjective judgment is tied to the system); (6) User Value (the user's subjective judgment is tied to the system) affects Continuous Usage.

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