

The Effects of Tourism Web Development on Prospective Travelers by Considering Persuasive and Liking Principles

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ABSTRAK

Landasan penting keberlanjutan pariwisata Indonesia adalah pemanfaatan dan adopsi teknologi informasi secara efektif dan efisien. Salah satunya melalui situs web pariwisata yang dibangun secara responsif dan persuasif. Pembangunan situs web pariwisata harus diukur kualitasnya berdasarkan apa yang dirasakan oleh pengguna terhadap situs web tersebut. Tujuan membangun situs web pariwisata adalah untuk mempengaruhi persepsi pengguna dan disukai wisatawan. Selain itu, ditujukan untuk menciptakan citra mental yang positif terhadap konten tentang destinasi wisata yang di beritakan melalui situs web pariwisata. Dalam membangun situs web pariwisata yang responsif menggunakan metode atau teknik umum seperti fluid grid layouts, dan media queries-screen resolution. Penggunaan metode atau Prinsip Persuasif dengan Prinsip Liking dalam pembangunan situs web pariwisata ini diterapkan dengan baik. Penelitian ini menghasilkan sebuah situs web pariwisata yang telah diuji secara white box, dan black box. Pengujian secara alpha dilakukan oleh pengguna internal dan pengujian secara beta dilakukan oleh pengguna eksternal. Hasil pengujian menunjukkan bahwa tingkat pengaruhnya sebesar 76.07%, dan tingkat kesukaan pengguna sebesar 74.40%. Situs web pariwisata ini telah diimplementasikan melalui laman <https://www.pesonajawa.com>. Hasil pengujian juga menunjukkan bahwa Prinsip Persuasif dengan Prinsip Liking memiliki keterkaitan atau korelasi yang kuat dengan persentase 88,22%.

ABSTRACT

The essential foundation for Indonesia's tourism is the use of information technology effectively. Building a tourism website with a well-maintained response and Persuasive message. The construction of a tourism website must be measured in quality based on what users feel about the website. This study aims to build a tourism website that can affect user perception and is preferred by users, in this case, tourists. In addition, the intention is to create a positive mental image of content about tourist destinations that are preached through the tourism website. In this study, to build a responsive tourism website using general methods or techniques such as fluid grid layouts and media queries-screen resolution. Persuasive and Liking methods or principles in constructing this tourism website are well implemented. This research produced a tourism website tested in a white box and a black box. The Black box testing, i.e., alpha testing, is conducted by internal users, and external users conduct beta testing. This tourism website has been implemented through the page www.pesonajawa.com. The test results show that the effect level is as large as 76.07%, and the user's favorite level is 74.40%. The Persuasive Principle with the Liking Principle have a strong relationship or correlation with the percentage of 88.22%.

1. INTRODUCTION

Indonesia, precisely the central island of Java, has a triangular path of tourist cities, namely Yogyakarta (Jogjakarta), Solo, and Semarang, which offer several diverse tourist destinations with great charm and attraction for domestic and foreign tourists. This triangular tourist town has the famous name Joglosemar. Javanese cultural support makes Joglosemar more popular. Javanese society has been widely known by several other communities in Indonesia and the world who have hospitality, so it is a significant capital in tourism. The essence of tourism is the relationship between tourists and residents or local communities as hosts. The Minister of Tourism and Creative Economy mentioned the importance of friendly tourism for the continuity of tourism destination management in supporting Indonesia's economic growth. Joglosemar is a top tourist destination among the 10 New Bali as it is the central pillar of Borobudur Temple

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as a priority destination (Kusubandono, 2020). There are four international airports in the Joglosemar area, namely Ahmad Yani, Adi Sumarmo, Adi Sutjipto, and Yogyakarta International Airport Kulonprogo.

One of the crucial foundations of Indonesia's tourism sustainability as a strategic pillar is information technology in tourism. This strategy emphasizes the effective and efficient adoption and utilization of information technology as an enabler of sustainable tourism development. Information technology plays a vital role in facilitating people's lives in doing various things, one of which is in the tourism sector. Kemenparekraf Strategic Plan source stated, tourist behavior has changed when searching for, obtaining, and disseminating tourism information through digital devices by 70% (Kusubandono, 2020), based on this fact, the government is trying to improve tourism-related infrastructure so that tourists are interested in tourist destinations (Maazouzi, 2020). As an industry that moves, accommodates and entertains people, tourism is a dynamic and competitive industry. The tourism industry is the largest service industry globally because it reaches prospective tourists between regions and countries. The Internet as a platform is indispensable for the tourism industry in bringing the message of its products and services directly to users (Mahajan, et al., 2016). Through Internet, the website is accessed to obtain the necessary information as a reference according to the necessary needs.

A website is a collection of web pages containing information that web users can access over the Internet. The website has proliferated and become a vital facility to help tourists get information about exploration and tourist options. A tourism website is dedicated to the travel sector that serves users, such as travel information (Lončarić, et al., 2013). A website is also an effective tool for communicating with potential customers. Thus, the website is an essential promotion for tourism stakeholders and the tourism industry. Through the website's main features, the perception of tourists can be changed and convinced to visit these tourist destinations (Roig, 2019). The image of tourist destinations that attract tourists could determine whether a website is good. The image of a tourist destination is a combination of beliefs and positive impressions and strongly developed over time (Phillips, et al., 2016; Pektas, et al., 2019), which is a crucial criterion for influencing the choice of the tourist destination. This image usually consists of affective imagery, namely the feeling generated by tourists about tourist destinations, mental imagery, belief, and knowledge about tourist destinations (Leung, et al., 2017), so that prospective tourists recommend the website. The image of an attractive website influences visits to tourist destinations (Shi, et al., 2019); this means that tourism websites can persuade prospective tourists. In addition to increasing the number of tourist visits, the image of tourist destinations dramatically affects the perception and attitude of tourists to visit again.

Tourism websites have been widely used to share information about tourist destinations, making them an informative tool for building the image of tourist destinations. There has been much research done to study the behavior of tourists when they make their travel plans. It is vital to create a tourism website to promote an online destination. The role of tourism websites in building the image of tourist destinations cannot be taken lightly, important for online sources of information that persuade, motivate and convince potential tourists to visit those destinations (Shafiee, et al., 2016). The development of a tourism website requires a comprehensive and reliable size or instrument to measure the perceived quality of the tourism website. Four factors can be used to evaluate a website: the completeness of information, credibility, usability, and persuasive nature. Credibility and Persuasiveness are combined into one factor called influence, while completeness and usefulness are confirmed as stand-alone factors (Novabos, et al., 2016).

Psychological principles can be applied to influence people through websites like Social proof and Liking. The principle of Liking can be measured through attractiveness and similarity. Self-assessment of attractiveness moderates the impact of the target's attractiveness on the preferences and personality conclusions about the target, i.e., tourist destinations. The similarity of attraction also fully mediates the influence of the attraction of tourist destinations on preferences. The current project focuses on the impact of attractiveness on likeness (Horton, 2010). Marketing through social media can be reached with the power of the Liking Principle (Lipsman, et al., 2012). Tourism marketing needs to be done with the Liking Principle to reach users. The most prominent user motivations for liking behavior are pleasure, information search, and social interaction. Developers use the important Liking principle in the long run to build customer support. The assertive user behavior of the Liking Principle leads to usage intentions (Hossain, et al., 2019). This research focused on measuring website image through persuasive and Liking principles.

Tourism websites should create a positive mental image with an approach that can encourage tourists' fondness with techniques or the Liking Principle. A person will like others who are similar to him, give praise, and cooperate with him to achieve a common goal (Brayfield, 2019). With the Principle of Liking, the application must have an attractive look for tourists and be implemented as a tourist image on the tourism website page. Liking indicates that people will follow the ones they like (Rahman, 2020). This persuasive tourism website is expected to give an excellent picture to tourists about tourist destinations so that the picture of the tourist destination is preferred.

2. METHODS

This chapter explains the research methods used. The purpose of this method is the stages carried out in developing a tourism website that is responsive, persuasive, and preferred. The development of tourism websites is done by planning, thinking, and proven processes to produce a persuasive website. A website design methodology is created by creating site plans, layout plans, and content (Khurana & Khurana, 2004). Creating a site plan is like outlining navigation tabs for web pages and identifying different categories and subcategories in which different content articles are assigned. Creating a layout determines the placement of the logo and button style, header or title, and text. The layout plan ensures that the look and feel of the website are consistent with its material. The final stage includes developing content placed on a website based on facts found, provided by users or by marketing agencies.

2.1. Responsive Website Design

In this study, tourism websites were designed responsively. There are standard techniques for responsive website design, such as fluid grid layouts and media queries-screen resolution (Bader & Hammouri, 2016). Rapidly increasing internet usage with different devices, different screen resolutions, and different orientations resulted in websites having to be responsive. The website built should be accessible to different devices without changing the program. These different devices can be personal computers, laptops, tablets, and mobile phones with different resolutions, as shown in Figure 1.

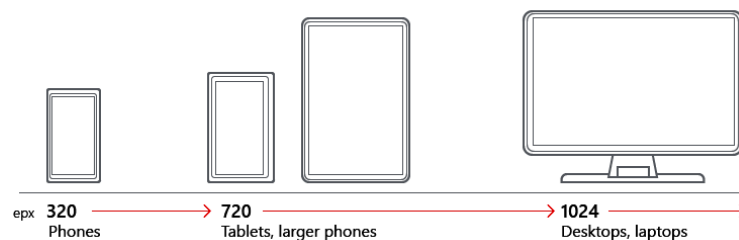


Figure 1. The difference in device resolution to access the internet (Bader, 2016).

2.2. Principles of Website Design

In this study, tourism websites were designed following the Persuasive Principles and Principles of Liking. In designing websites for persuasive communication in the context of travel, the process of mental imagery is an essential element (Lee & Gretzel, 2012), so the Persuasive Principle is fundamental. The principle of Liking is also fundamental for showing subjects, e.g., people, places, and attractions that are interesting in displaying their services (Rodríguez, 2017). People are more likely to trust the information on a website about what is being said to them. A website can also display vital information about the person and what he or she is doing so that others can identify the appropriate ones that match him or her (Barker, 2021).

2.3. Site Testing Methods

There are two broad concepts about testing: white box testing and black box testing based on information sources such as specifications, source code, input, and output. White box testing is also called structural testing, which checks code that focuses on data flow and control, while black-box testing is called functional testing, which does not require access to code or internal programs. Black box testers only need to be on the accessible parts outside the program, i.e., externally observable inputs, and results (Naik & Tripathy, 2008). The life cycle of developing this tourism website follows four stages of testing before implementation. There are four stages of testing referred to as the classical model, namely unit, integration, system and acceptance testing. Testing persuasive principles and liking principles is carried out by submitting forms online through google forms given to users of tourism websites created and implemented.

3. RESULTS AND DISCUSSIONS

3.1. Responsive Tourism Website Design Result

Section 2.1 explains responsive web design. As proof that the tourism website built is responsive, there is a logo and menu with a width of 1024 pixels that looks intact even though it is accessed with different devices, namely personal computer devices and laptops, as shown in Figure 2.

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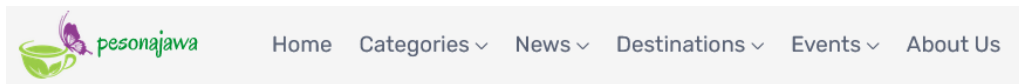


Figure 2. Grid Layout Menu on Laptop Devices

The creation of responsive web applications must be arranged in layout using fluid grid layout techniques that look like in Figure 3. Fluid grid layout techniques can set up pages on tourism websites that adjust the devices used proportionally. The language used on the tourism website www.pesonajawa.com consists of 2 languages, English for menu views and Indonesian for the appearance of tourist destinations, such as news about tourism and the region's name.

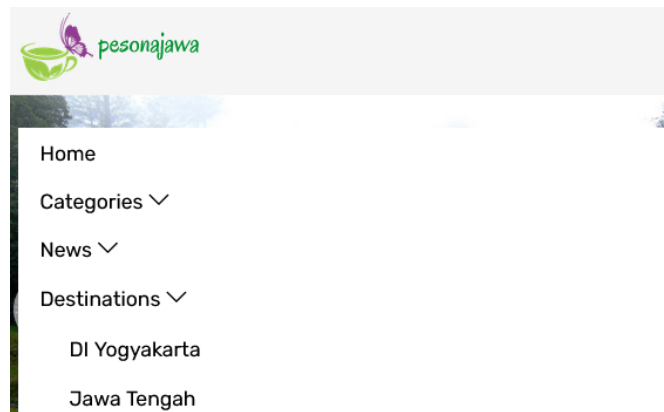


Figure 3. Grid Layouts Menu on Cell Phone Devices

Media queries and screen resolution techniques select different sources on the image. For example, Figure 4 displays a photo of a tourist destination with an extended image caption if the website is accessed using a laptop device. In Figure 5, the web view becomes more concise with shorter captions when accessed with a mobile device, where the 'additional captions' on the image are hidden. Figure 5 says only the word 'Candi Gedongsongo', and no word is found for 'merupakan deretan candi di pegunungan Kabupaten Semarang'.



Figure 4. Photo Slider Display on Laptop Devices



Figure 5. Photo Slider Display on Mobile Devices

Website content should intelligently reshape itself for maximum impact and usability. HTML code and website CSS are adjusted to the resolution of the device used to access it without specifying different styles. Creating this view can be done in two ways: CSS media screen queries that allow the application of different CSS rules for different resolutions. JavaScript or jQuery scripts to dynamically calculate the dimensions and positions of elements according to screen dimensions (Subic, et al., 2014). A responsive website is a dynamic design that adjusts the device's width to display or visualize what is on the website.

This tourism website is developed responsively and adaptively with different screen dimensions, and its content is visible on all devices such as mobile phones, tablets, laptops, and personal computers. This developed tourist website's responsive nature is seen in Figure 6, a gallery display for tourist destinations per district or city viewed using a laptop. In contrast, Figure 7 displays tourist destinations per district or city viewed using mobile phones and tablets.

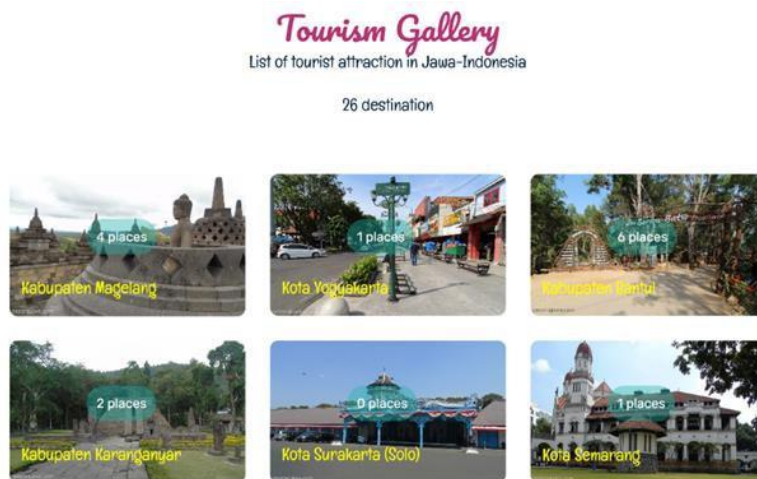


Figure 6. Galleries of Destinations Regency Using Laptop



Figure 7.

Figure 7. Galleries of Tourist Destinations per Regency Using Cell Phone

This designed tourism website links to more detailed information about tourist destinations across districts and cities. Figure 8 shows Magelang Regency's tourist destinations when clicking on the Gallery in Magelang Regency.



Figure 8. Display of Magelang Tourism Destinations when the Magelang Regency Gallery is clicked

3.2. Persuasive Website Design Result

Persuasive website design aims so that users can be influenced by the information contained on the website, as described in section 2.2. Users will follow the choices of others who give compliments. It has been researched those positive choices will tend to be followed by others. That is the Principle of Liking. The question that needs to be looked at is why is the Liking Principle used in tourism website design? The key to the Principle of Liking is to build relationships and collect Liking to influence others. The website only needs to be liked by users who can influence or persuade other users to use this principle. Liking is a term for the study of psychology. Few people would be surprised to learn that as a rule (Cialdini, 2009). With regards to this principle, users who view the website and like the user interface on each web page tend to be affected by the site. Designing a website interface should be focused on the user and anticipate the user's wishes. The website interface should be easy to understand, navigate, and use by the user.

Designing a website interface with a good Liking Principle can enrich the design of web pages to attract many users to explore the web (Appsierra, 2014). Factors that support the Liking Principle can be applied very well, one of which is physical attractiveness. So, the website must be well designed and functional so that users spend time browsing all channels on the site page or clicking on all the buttons provided (Hum, 2014). As outlined earlier, namely in the introduction, the Principle of Liking can be measured through attractiveness and similarity. Figure 9 shows an example of a section on a tourism website page using Principles of Liking by displaying the person and what the person is doing.

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Sampai Habis Saking Nikmatnya, Kamu Mau? Kesini Ajal, 0000-00-00

Seperti ini lho menu ringan yang kunikmati sambil menunggu makan malam sebelum kembali ke Malioboro Yogyakarta.



Figure 9. Parts of the Page that Affect Users

3.3. Tourism Website Testing and Implementation

White-box testing of this website has been carried out at every level by involving each part throughout the life cycle of developing this tourism website by covering four stages of testing before implementation. The four stages of testing carried out are unit testing, integration, and systems carried out by researchers when developing tourism websites, then testing on the level of acceptance carried out by users or tourists. Black box testing is acceptance testing by users, such as a user acceptance test, and can be done through beta testing. Before external users do beta testing, alpha testing is done first by internal. Alpha testing is internal testing that takes place on a developer's site before being released to external customers to know the presence of bugs (Tutorialspoint, 2021). After alpha testing is carried out internally, the tourism website that the researcher developed is released. Tourism websites have been implemented and can be accessed by users connected to the Internet through the www.pesonajawa.com. It is proof that alpha testing has been completed. The next test is conducted beta testing by website users externally with a form of technical beta testing to determine the level of user acceptance based on the Persuasive Principle and liking.

Beta testing is a testing method performed by a user, also referred to as testing by the user, that takes place on the end user's site and by the end-user to validate reliability and usability. The goal of beta testing is not to find defects but to get feedback from the field. The form of testing conducted is a technical beta to get feedback on the usability of tourism websites in natural environments from a small number of friendly external users (Naik & Tripathy, 2008).

Testing of the Persuasive Principles and Liking Principles was conducted by external users, followed by 60 respondents by filling out an online questionnaire through the form provided on a google form. The form on this google form is accessed through the website of www.pesonajawa.com tourist destinations provided in February - March 2022. This test aims to get feedback from external users on whether this www.pesonajawa.com tourism website is Persuasive and meets the Liking Principle. In addition, testing is also helpful to get proof that they like what is displayed on the pages of these tourism websites and that display affects them. The following subchapter discusses data collection and analysis techniques for testing tourism websites www.pesonajawa.com.

3.4. Data Collection and Processing Techniques

Data collection from participants as respondents through this questionnaire uses a rating scale technique with a numerical rating scale type. The rating scale technique is one of the most established questions in online surveys, where survey respondents will assess attributes or features. The rating scale is a variant of the multiple-choice questions widely preferred to gather information (Kling, 2021). The numerical rating scale uses numbers as the answer choice, and not every number corresponds to characteristics or meanings (QuestionPro, 2021). The rating scale is used in this survey, namely for Persuasive Principle items using scales: 5. Strongly Agree, 4. Agree, 3. Hesitate, 2. Disagree, 1. Strongly Disagree. As for the Liking Principle item using the scale: 5. Very Like, 4. Like, 3. Normal, 2. Dislike, 1. Very Dislike.

This scale is also referred to as the Likert scale to measure respondents' opinions and attitudes towards statements through questionnaires. A Likert scale is a scale that has several categories from which respondents choose to show their opinions, attitudes, or feelings about a particular issue. The Likert scale instrument is most often used to measure psychological construction, which is one aspect of a person's influence or cognition that can be operationalized and measured (Nemoto & Beglar, 2014). The Likert scale consists of several Likert-type items combined into a single composite score or variable during data analysis. Researchers are usually interested in composite scores representing traits or personalities. Likert scale data is analyzed on the interval measurement scale.

Likert scale items are created by performing a combined score calculation (average or number) of 5 Likert-type items, so the composite score for the Likert scale must be analyzed on the interval measurement scale (Boone & Boone, 2012).

An interval scale is a quantitative measurement scale with a regular distance with the same interval. So that this scale can be used to measure variables that exist at the same interval as the specified distance between intervals. This scale interval is preferred in statistics because numerical values assess opinions and feelings (Spratto, 2018). As mentioned earlier, in this study, the scale used was between 1-5, so there are five scales. Before analyzing the Persuasive Index and Liking Index, the assessment criteria are first determined according to the interval, namely $I = 100/5$ (value 5 is the number of scales used). So, the interval value is $I = 20$. Thus, the persuasive index and liking index assessment criteria have criteria such as Table 1.

Table 1. Persuasive Index and Liking Index Criteria

No	Interval	Persuasive Principle	Liking Principle
1	00% - 19,99%	Strongly Disagree	Strongly Dislike
2	20% - 39,99%	Disagree	Dislike
3	40% - 59,99%	Indecisive	Normal
4	60% - 79,99%	Agree	Like
5	80% - 100%	Strongly Agree	Strongly Like

Table 2 provides an example of each of the five questions designed to be combined into a Likert scale to measure persuasive levels and Liking. Questionnaires obtained from respondents were processed to find out the strength of the Liking Principle in the development of Persuasive tourism websites. Data processing is translated into tables seen in Table 2.

Table 2. Questionnaire Results from 60 Users based on Rating Scale

No	Item	Number of respondents									
	Persuasive Principle	5		4		3		2		1	
X1	This destination website provides references for visiting favorite tourist destinations	19	31,67	24	40,00	4	6,67	8	13,33	5	8,33
X2	Easy to browse tourist destination information with clear navigation	23	38,33	21	35,00	4	6,67	6	10,00	6	10,00
X3	I will visit the website of this tourist destination again during my next sightseeing trip.	16	26,67	25	41,67	6	10,00	10	16,67	3	5,00
X4	Tourist destination website is interesting and easy to use	23	38,33	24	40,00	1	1,67	9	15,00	3	5,00
X5	This tourist destination website is responsive with easy-to-understand menus and submenu	24	40,00	22	36,67	3	5,00	4	6,67	7	11,67
	Score I	105	-	116	-	18	-	37	-	24	-
	Score I*S (total number of respondents X scale value)	525	46,01	464	40,67	54	4,73	74	6,49	24	2,10
	Liking Principle										
Y1	Visual appearance with typography selection for the overall layout on the website	13	22,03	23	38,98	11	18,64	7	11,86	5	8,47
Y2	Selection of images, buttons, and typography for navigation to other pages	20	33,33	21	35,00	8	13,33	6	10,00	5	8,33
Y3	Division of tourist destination pages and news from the public to detail	19	31,67	20	33,33	9	15,00	5	8,33	7	11,67
Y4	Click button brings to the correct information to browse the channel on the website	27	45,76	17	28,81	3	5,08	3	5,00	5	8,47
Y5	Grouping of city/district areas and tourism categories	27	45,00	18	30,00	2	3,33	6	10,00	7	11,67
	Score I	106	-	99	-	33	-	31	-	29	-
	Score I*S (total number of respondents X scale value)	530	47,49	396	35,48	99	8,87	62	5,56	29	2,60

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3.5. Persuasive Index Analysis and Liking Index

The results of the questionnaire analysis showed that this tourism website persuades users, where users or respondents who expressed strongly agreed 46.01%, agreed 40.67%, hesitated 4.73%, disagreed 6.49%, and strongly disagreed 2.10%, as seen in Figure 10. While the favorability level shows that those who like 47.49%, like 35.48%, normal 8.87%, dislike 5.56%, and strongly dislike 2.60%, as seen in Figure 11.

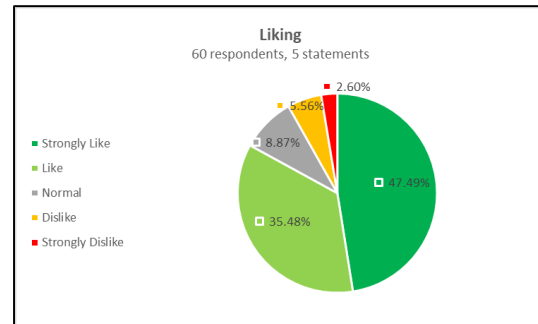
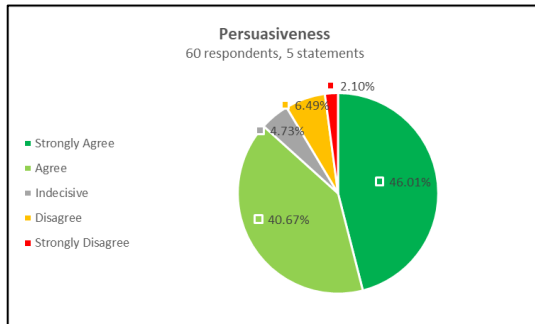


Figure 10. Respondents Statements – Persuasiveness **Figure 11. Respondents Statements about Liking**

User perception of tourism websites www.pesonajawa.com measured using persuasive index analysis and Liking Index using measurements from Tuningrat (Tuningrat, et al., 2012). Persuasive Index measurements from the results in Table 2 are formulated as follows:

$$\text{Persuasive index} = \frac{T_{\text{Persuasive}}}{(5 * Y)} * 100\% \quad (1)$$

$$\text{Persuasive index} = \frac{1,141}{(5 * 300)} * 100\% = 76,07\%.$$

in which,

- $T_{\text{Persuasive}}$ is the total score of persuasive principles,
- Constant 5 indicates the highest scale value used in this study,
- Y is the number of questions/statements multiplied by the number of respondents.

Based on the index value of 76.07%, tourism websites www.pesonajawa.com persuade users. Users agree that this tourism website provides references to visit tourist destinations, easy to search for information with straightforward navigation, is interesting, easy to use, responsive, and influences to make the next visit. The user's level of fondness for this website is also measured. The Calculation of the Liking Index from the results of Table 2 is described as follows:

$$\text{Liking index} = \frac{T_{\text{Liking}}}{(5 * Y)} * 100\% \quad (2)$$

$$\text{Liking index} = \frac{1,116}{(5 * 300)} * 100\% = 74,40\%$$

in which,

- T_{Liking} is the total Liking score,
- Constant 5 indicates the highest scale value used in the study,
- Y is the number of questions/statements multiplied by the number of respondents.

The index value reached 74.40%, indicating that users favor the tourism website www.pesonajawa.com. Users are fond of visual appearance with good typography, buttons, and images for navigation, page blocking, site channel search buttons, and grouping tourist destinations. The Persuasive Index and Liking Index measurements from tourism websites www.pesonajawa.com get good responses and appreciation from users.

3.6. The Relationship Between Persuasive Principles and Liking Principles.

This sub-section discusses the analysis used to determine the relationship between the Persuasive Principle and the Liking principle in building a website after analyzing user perception through the Persuasive Index and liking index. Contingency tables are used to analyze further the Persuasive and Principles of Liking are using the Pearson chi-squared statistic equation (Agresti, 2018).

$$\chi^2 = \sum \frac{(\eta_{ij} - \mu_{ij})^2}{\mu_{ij}} \quad (3)$$

To determine the relationship between persuasive and liking properties, use contingency coefficients or correlation coefficients with equations such as the following:

$$C = \sqrt{\frac{\chi^2}{\chi^2 + n}} \quad (4)$$

To find out the value of Chi-Square (χ^2), it is necessary to know in advance the expected frequency value (μ_{ij}), which is the number of individuals expected in the i row and the j column with the formula $\mu_{ij} = \frac{\text{jumlah sebaris} \times \text{jumlah sekolom}}{\text{jumlah keseluruhan sebaris}}$ such as the equation used by Kusuma (Kusuma, et al., 2016), namely:

$$E_{ij} = \frac{(n_i)(n_j)}{n_{..}} \quad (5)$$

Then to find out the strength of the relationship between the variables in the Persuasive Principle and the Liking Principle is done by comparing the value of C with C_{max} using the formula [46]:

$$C_{max} = \sqrt{\frac{m-1}{m}} \quad (6)$$

Where m is the minimum number of rows or the number of columns, then the strength of the relationship between variables is measured by percentage (Q) using the formula (Aini, 2021):

$$Q = \frac{C}{C_{max}} \times 100\% \quad (7)$$

Of the five variables of the Persuasive principle size and the five variables of the Liking Principle measure are taken each of the two variables whose principle supports each other, namely:

Variable X1 states that the website provides references to visit favorite tourist destinations.

Variable X2 states the ease of websites providing tourist destination information with straightforward navigation.

Furthermore, from the Liking Principle is taken each of two variables can be measured, namely:

Variable Y1 states the visual appearance of the website with the selection of typography for the overall layout

Variable Y2 states the selection of images, buttons, and typography for navigation to other pages of the tourism website created

From the two variables, Persuasive and Liking will be created contingency tables as in Table 3 and Table 4. Testing on the relationship (association) between the Persuasive Principle and the Liking principle was carried out using two values of Chi-Square Table 3 and Table 4 to conclude the formulation of the hypothesis as follows:

Hypothesis H0: There is no association between the Persuasive and Liking variable.

Hypothesis Ha; There is an association between the Persuasive and Liking variable.

Table 3. Persuasive Principle Contingency Table Variable X1 to Variable Liking Principle Y1

Liking Principle - Y1	Persuasive Principle - X1			Total
	Strongly Agree and Agree	Indecisive	Disagree and Strongly Disagree	
Strongly Like and Like	36 (E11: 26,517)	1 (E12: 7,883)	0 (E13: 8,600)	37
Normal	7 (E21: 2,467)	3 (E22: 0,733)	1 (E23: 0,800)	11
Strongly Dislike and Dislike	0 (E31: 8,017)	0 (E32: 2,383)	12 (E33: 2,600)	12
Total	43	4	13	60

Table 4. Persuasive Principle Contingency Table Variable X2 to Variable Liking Principle Y2

Liking Principle – Y2	Persuasive Principle – X2			Total
	Strongly Agree and Agree	Indecisive	Disagree and Strongly Disagree	
Strongly Like and Like	39 (E11: 30,067)	2 (E12: 5,867)	0 (E13: 8,067)	41
Neutral	5 (E21: 2,733)	1 (E22: 0,533)	2 (E23: 0,733)	8
Strongly Dislike and Dislike	0 (E31: 8,200)	1 (E32: 1,600)	10 (E33: 2,200)	11
Total	44	4	12	60

Calculation of Chi Square using equation (3) in Table 3 obtained results, $\chi^2_{test1} = \frac{(36-26,517)^2}{26,517} + \frac{(1-7,883)^2}{7,883} + \frac{(0-8,600)^2}{8,600} + \frac{(7-2,467)^2}{2,467} + \frac{(3-0,733)^2}{0,733} + \frac{(1-0,800)^2}{0,800} + \frac{(0-8,017)^2}{8,017} + \frac{(0-2,383)^2}{2,383} + \frac{(12-2,600)^2}{2,600} = 77,774$.

In the same way, the calculation of Chi-Square in Table 4 is $\chi^2_{test2} = 53,825$.

The next step is to calculate the contingency coefficient (C) using the equation (4); the value of the contingency coefficient in Table 3 is,

$$C = \sqrt{\frac{77,774}{77,774+60}} = 0,751$$

and the value of the contingency coefficient in Table 4 is,

$$C = \sqrt{\frac{58,825}{58,825+60}} = 0,688$$

With significance level α , we reject the null hypothesis H_0 if $\chi^2_{computing} > \chi^2_{table}$. Where $\chi^2_{table} = \chi^2_{(\alpha)(df)}$. We know that df is a degree of freedom, and $df = (r - 1)(c - 1)$, we define that r is the number of rows and c is the number of column of the table. The magnitude of df in this study is $df = (3-1)(3-1) = 4$. Let $\alpha = 0.05$. The $\chi^2_{table} = \chi^2_{(0,05)(4)} = 9,488$.

From previous computations, it is known that $\chi^2_{test1} = 77,774$ dan $\chi^2_{test2} = 53,825$. Value $\chi^2_{table} = \chi^2_{(0,05)(4)} = 9,48$, it means that $\chi^2_{test1} > \chi^2_{table}$ and $\chi^2_{test2} > \chi^2_{table}$, and the null hypotheses are rejected. We can conclude that there is an association between Persuasive and Liking variables.

Measurement of how much the relationship between persuasive and Liking variables is done by comparing the value of C with Cmax using the formula (7):

$$Q = \frac{C}{C_{max}} \times 100\%$$

Where, the formula (6):

$$C_{max} = \sqrt{\frac{m-1}{m}}, \text{ If } C_{max} = \sqrt{\frac{3-1}{3}} = 0,816,$$

where m is the minimum number of rows and the number of columns of the contingency table.

The strength of the relationship between variables representing the principles of Persuasive and Liking will be measured based on the formula (7). The following calculated the strength of the relationship between variable X1 in the Persuasive Principle and variable Y1 in the Liking Principle.

$Q_1 = \frac{0,751}{0,816} \times 100\% = 92,019\%$, In the same way calculated the strength of the relationship between variable X2 and variable Y2 i.e.,

$$Q_2 = \frac{0,688}{0,816} \times 100\% = 84,221\%,$$

Based on two Q values, the average is calculated $Q_{rate} = 88,22\%$. The results showed the relationship between persuasive and liking variables was close. Thus, the website design that prospective visitors prefer can persuade prospective visitors to go to tourist destinations.

4. CONCLUSION

The research resulted in an application that was website-based and accessible using devices with different resolutions. This tourism website has been hosted on the website page location: <https://www.pesonajawa.com>. It is hosted on a website data management service. As explained in the results and analysis section, this tourist destination website has fulfilled the principle of persuasive website design with a level of influence on users of 76.07% and a user favorability rate of 74.40%. In addition, this tourism website has fulfilled its responsive nature. It can be accessed through different devices with different resolutions through standard techniques such as fluid grid layouts, media queries, and screen resolution.

By measuring the Persuasive Index and the Liking Index, this tourism website can help tourists learn about its tourist destinations and form a strong fondness for tourism websites. Information about tourist destinations through the website is getting more and more, and it is essential to create a tourism website that is persuasive and liked.

Through the analysis of the Persuasive Principle's strength with the Liking Principle, it was found that these two principles have a strong relationship or correlation with the percentage of 88.22%. So, in building a website, consideration of the use of Persuasive Principles and Liking Principles is essential.

Future research will study the Effects of tourism web development on prospective travelers by including the Principle of social proof. We know that a good review of travelers after visiting a tourist destination has the power to influence prospective travelers to like the destination and will eventually visit the tourist destination.

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