

Evaluating the Technology Acceptance of Wikipura: Insights from Balinese Hindus on the Bilingual Encyclopedia for Bali's Hindu Temples

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ABSTRACT: Bali is known as the Island of the Gods because it has thousands of Hindu temples. However, not all Balinese people, especially those in the younger generation, are familiar with the gods and goddesses worshipped in each temple. Therefore, the researchers developed Wikipura, an online bilingual encyclopedia for Hindu temples in Bali. Specifically, this study aimed to examine male and female respondents' acceptance of Wikipura and to identify the factors influencing their acceptance. This study employed a survey research design. The researchers collected data using a questionnaire developed based on the Technology Acceptance Model (TAM). The research sample consisted of 300 Generation Z Balinese Hindus, including 150 male respondents and 150 female respondents. The participants were selected using quota sampling. The collected data were analyzed quantitatively using descriptive statistics and multiple regression analysis. The findings revealed that both male and female respondents showed a high level of acceptance of Wikipura, and there was no significant difference between the acceptance levels of male and female respondents. The high level of acceptance of Wikipura indicates that digital tools can effectively introduce cultural and religious heritage to young people. It also demonstrates that integrating technology into educational frameworks can be a powerful strategy for preserving and disseminating cultural knowledge.

KEYWORDS: Online encyclopedia; Hindu temples; Balinese Hindus

1. Introduction

Culture is a characteristic of a society. Therefore, preserving cultural heritage is crucial in maintaining the identity of a society [1], [2]. Bali is known as the Island of the Gods and is famous for its rich cultural and religious heritage [3]. One of the prominent cultural heritages of Balinese society is the thousandsof Hindu temples. However, based on observations by researchers in the field, it was found that there is a tendency for a decline in the knowledge and understanding of the younger generation of Balinese Hindus about the gods and goddesses worshipped in the temples. The lack of knowledge of the younger generation about their culture

is a significant challenge to the sustainability of a culture, and this condition demands the role of innovative education in socializing culture [4–6].

Utilizing digital technology can solve the challenge of a low understanding of the younger generation's culture. Digital platforms can effectively, interestingly, disseminate culture [7–9]. In addition, the use of digital media will also make information easily accessible anytime and anywhere through various devices that are suitable for generations Z and alpha [10]. Several previous studies have confirmed the potential of digital media in improving educational outcomes and preserving cultural heritage [11–13]. Despite this potential, research on the application of digital technology in religious education among young Balinese Hindus is still limited. Therefore, this study aims to address the gap in understanding Balinese Hindu youth towards Balinese Hindu temples as cultural heritage by developing and evaluating "Wikipura," a bilingual online encyclopedia of Hindu temples in Bali. The novelty of this study lies in its focus on the cultural and religious context of Balinese Hinduism and the use of the Technology Acceptance Model (TAM) to assess the acceptance of Wikipura among young Balinese Hindus. Empirically, TAM has been used by several researchers to measure the level of user acceptance of technology in various domains [14–18]. However, applying TAM in the context of cultural and religious education remains under-explored. In addition, this study also offers insight into factors that influence the acceptance of digital tools for cultural education, with a particular focus on gender differences.

Gender differences are the focus of the analysis of Wikipura acceptance because several studies have shown gender differences in technology acceptance. For example, a study by Nouraldeen [19] found that men are more ready to use new technology. Another study conducted by Sobieraj and Krämer [20] also found that women have different beliefs about using technology due to its complexity. This suggests that using technology is more challenging for women than men.

Thus, specifically, this study aims to assess the acceptance of Wikipura among the Z generation of Balinese Hindus, compare the acceptance from gender and educational background perspectives, and identify the effect of gender and educational background on acceptance. Besides, this study also identifies users' experiences, preferences, and suggestions for improvement. Hopefully, this study contributes to the broader discourse on digital cultural education by providing empirical evidence on the acceptance of digital tools in preserving and promoting cultural heritage. In other words, this study examines the critical need for cultural education by utilizing digital technology for Balinese Hindu youth to disseminate information about Balinese Hindu temples as their cultural and religious heritage. This finding contributes to the preservation of cultural heritage through innovative digital solutions.

2. Theoretical Review

In this study, the researchers used several theories as the foundation for the research. These theories included the Technology Acceptance Model (TAM), cultural heritage preservation theory, and the role of digital tools in education. Together, these theories provided a robust conceptual framework for examining and understanding the acceptance of Wikipura as a digital platform for disseminating information about Hindu temples in Bali to the younger generation.

2.1. Technology Acceptance Model (TAM).

The Technology Acceptance Model (TAM), developed by Davis (1989), has been widely used by researchers and digital media developers to measure the acceptance of information systems. TAM explains that perceived usefulness (PU) and perceived ease of use (PEOU) are two primary factors influencing users' acceptance and use of technology [21, 22]. Perceived usefulness refers to the degree to which a person believes that using a particular system will enhance performance or facilitate the achievement of goals. In contrast, perceived ease of use refers to the degree to which a person believes that using a particular system requires minimal effort [23]. Over time, TAM has been widely validated in various contexts and technologies, including educational media and digital learning systems [14]. In this study, TAM was used as the main theoretical framework to assess the acceptance of Wikipura among Balinese Hindu youth. Specifically, this study examined PU and PEOU to understand the factors influencing their intention to adopt and use Wikipura as a tool for learning about Hindu temples in Bali.

2.2. Cultural heritage preservation.

The preservation of cultural heritage has been considered essential for many societies because it is closely related to cultural identity. Cultural heritage includes both tangible and intangible assets inherited from past generations, maintained in the present, and passed on for the benefit of future generations [24]. Theories of cultural heritage preservation emphasize the importance of education and community involvement in maintaining cultural traditions and knowledge. With the rapid development of technology, digital tools have increasingly been recognized as effective instruments for preserving cultural heritage. Digital platforms allow information to be stored and disseminated quickly and in large quantities, enabling broader public access to cultural knowledge. These platforms also provide interactive and engaging learning experiences that align with the characteristics of younger generations, particularly Generation Z and Generation Alpha [25]. Therefore, the development of Wikipura was consistent with these theoretical perspectives, as it provided an innovative digital solution for preserving and disseminating knowledge about Balinese Hindu cultural and religious heritage.

2.3. Digital tools in education.

The integration of digital tools in education has been widely studied, with many reported benefits, including increased accessibility, higher engagement, and improved learning outcomes [26, 27]. Digital tools have offered flexible and personalized learning experiences that accommodate diverse learning styles and preferences. Furthermore, digital tools have enabled interactive and collaborative learning environments that enhance students' comprehension and retention of information [28]. In the context of cultural education, digital tools have played an important role in making cultural knowledge more accessible and engaging for young learners. Previous research has demonstrated that digital platforms can effectively deliver complex cultural and historical information through interactive formats [29]. By developing Wikipura, this study aimed to leverage these advantages to enhance the cultural education of young Balinese Hindus.

2.4. *Generation Z.*

Generation Z (Gen Z) generally refers to individuals born between the mid-to-late 1990s and the early 2010s. They have often been described as digital natives because they grew up in an environment shaped by rapidly evolving digital technologies, such as the internet, smartphones, and social media [30]. Members of this generation typically demonstrate strong technological skills and high levels of engagement with digital platforms. They frequently use social media applications such as Instagram, Snapchat, and TikTok to communicate and shape their social identities [31]. In addition, Generation Z has shown strong awareness of social issues, including climate change and social justice, and has actively participated in movements promoting equality and diversity. In terms of education and career preferences, Generation Z has often favored learning paths that provide practical skills applicable in the workplace [32]. Mental health has also been an important concern for this generation, as they have been more open to discussing mental health issues and seeking support when needed [33]. Furthermore, Generation Z has valued individuality and self-expression, which are often reflected in fashion, social media presence, and creative activities [32].

2.5. *Gender and technology acceptance.*

Gender differences in technology acceptance and usage have been widely examined, although findings have been mixed. Some studies have suggested that males were more likely to adopt new technologies due to higher technological self-efficacy and stronger interest in technology [14]. However, other studies have indicated that these gender differences have gradually diminished, particularly among younger generations who have grown up with digital technologies [34, 35]. In this study, examining gender differences in the acceptance of Wikipura provided insights into whether male and female respondents differed in their perceptions of the platform's usefulness and ease of use. Understanding these differences was important for informing the design and implementation of digital educational tools to ensure that they are inclusive and effective for all users.

2.6. *Educational background and technology.*

Educational background has been shown to influence technology usage. Individuals with higher levels of education have generally demonstrated stronger digital literacy skills [36]. Those with higher educational attainment have also tended to have greater access to modern technological resources [37]. Moreover, individuals with higher education levels have often used advanced technologies more frequently in their daily activities [38]. Consequently, individuals with higher educational backgrounds have typically been better able to adapt to and utilize new technologies effectively [39].

3. Method

This study employed a mixed-method research design, specifically the sequential explanatory mixed-method approach. This design began with a quantitative phase and was followed by a qualitative phase to provide deeper interpretation of the quantitative findings [40]. In this study, the quantitative approach was used to examine the acceptance of Wikipura among Balinese Hindu youth, while the qualitative stage supported the interpretation of the quantitative results.

3.1. Samples.

The study sample consisted of 300 Balinese Hindus. The participants were selected using quota sampling to ensure equal representation between male and female respondents. The sample included 150 male respondents and 150 female respondents, resulting in a balanced gender distribution. This equal representation was intended to facilitate the analysis of gender differences in the acceptance of Wikipura. In addition, respondents were equally distributed based on their educational background. A total of 150 respondents were senior high school students or individuals whose highest educational attainment was senior high school, while the remaining 150 respondents were university students or graduates of higher education institutions. The demographic characteristics of the respondents are summarized in Table 1.

Table 1. Demographic characteristics of the sample.

Demographic Variable	Category	Frequency
Gender	Male	150
	Female	150
Educational Background	Senior High School	150
	Higher Education	150
Total Respondents		300

3.2. Instrument.

Data in this study were collected using a questionnaire developed based on the Technology Acceptance Model (TAM). The questionnaire measured two main constructs: perceived usefulness (PU) and perceived ease of use (PEOU). The TAM constructs were adapted from validated measurement scales used in previous studies [14]. The questionnaire was distributed to the 300 respondents selected as research participants. Data collection was conducted after the respondents had used the Wikipura platform for two months to ensure that they had sufficient experience to evaluate the system.

3.3. Data analysis.

The collected questionnaire data were analyzed quantitatively using descriptive statistics and multiple regression analysis. Descriptive statistics were used to determine the level of respondents' acceptance of Wikipura. Meanwhile, multiple regression analysis was conducted to examine the influence of gender and educational background on respondents' acceptance of the platform. The data analysis was performed using SPSS for Windows version 20.

3.4. Validity and reliability.

The content validity of the questionnaire was established through a review of relevant literature and consultation with experts to ensure that the questionnaire items accurately represented the constructs of perceived usefulness and perceived ease of use [34]. The empirical validity of each questionnaire item was tested using the product–moment correlation test. Meanwhile, the reliability of the questionnaire was assessed using Cronbach's alpha coefficient. A Cronbach's alpha value above 0.70 indicated good internal consistency and acceptable reliability of the instrument [41].

4. Findings

This section presents the results of the study, including the level of respondents' acceptance of Wikipura and comparisons of acceptance levels based on gender and educational background. The findings were derived from data analysis using descriptive statistics and multiple regression analysis. Descriptive statistics were used to determine the overall acceptance level of Wikipura, while regression analysis examined the influence of gender and educational background on respondents' acceptance of the platform.

4.1. Respondents' acceptance of Wikipura.

Based on the questionnaire data collected from respondents, the results indicated that the overall acceptance of Wikipura was very high. The mean score was 46, which fell into the category of very high acceptance. The standard deviation was 1.71, indicating that respondents generally demonstrated consistently high acceptance levels. Sample responses related to perceived usefulness (PU) and perceived ease of use (PEOU) are summarized in Table 2. The high mean score was further supported by the minimum and maximum values, which also fell within the very high acceptance category. The minimum score recorded was 43, while the maximum score was 50. These values indicate that all respondents perceived Wikipura as useful for obtaining information about Balinese Hindu temples and considered the platform easy to use. The criteria used to categorize acceptance levels are presented in Table 3.

Table 2. Descriptive statistics of respondent acceptance of Wikipura.

Statistic	Value
Range	7.00
Minimum	43.00
Maximum	50.00
Mean	46.15
Standard Deviation	1.76
Variance	3.08

Table 3. Categories of respondents' acceptance levels.

Score Interval	Category
$X > 40$	Very High (VH)
$33 < X \leq 40$	High (H)
$27 < X \leq 33$	Moderate (M)
$20 \leq X \leq 27$	Low (L)

4.2. Gender differences in the acceptance of Wikipura.

Descriptive statistical analysis revealed slight differences in acceptance levels between male and female respondents. As shown in Table 4, male respondents had slightly higher values for the mean, median, mode, and maximum scores compared to female respondents. However, the differences were relatively small, indicating that both groups demonstrated similarly high levels of acceptance of the Wikipura platform.

Table 4. Descriptive statistics results for male and female respondents' acceptance.

Statistics	Male	Female
Mean	46.70	45.60
Median	47.00	45.00
Variance	2.86	2.65
Std. Deviation	1.69	1.63
Minimum	43.00	43.00
Maximum	50.00	49.00
Range	7.00	6.00

4.3. Educational background differences in the acceptance of Wikipura.

Differences in acceptance levels were also examined based on respondents' educational background. As presented in Table 5, respondents with higher education backgrounds showed a slightly higher mean score compared to those whose highest educational attainment was senior high school. However, both groups had identical median, minimum, and maximum scores, suggesting that acceptance of Wikipura was consistently high across educational levels.

Table 5. Descriptive statistics results for senior high school and higher education respondents' acceptance.

Statistics	Senior High School	Higher Education
Mean	45.97	46.32
Median	46.00	46.00
Variance	3.24	2.88
Std. Deviation	1.80	1.70
Minimum	43.00	43.00
Maximum	50.0	50.0
Range	7.00	7.00

4.4. Effects of gender and educational background on Wikipura acceptance.

The effects of gender and educational background on respondents' acceptance of Wikipura were analyzed using ANOVA, and the results are presented in Table 6. The ANOVA results indicated a statistically significant effect when both variables were considered simultaneously (Sig. = 0.00 < 0.05). This finding suggests that gender and educational background together influenced respondents' acceptance of Wikipura.

Table 6. Anova results.

Model	Mean Square	F	Sig.
Regression	55.320	20.261	.000a

However, when the variables were analyzed individually, different results were observed. Gender was found to have a significant effect on respondents' acceptance (Sig. < 0.05), while educational background did not have a significant effect (Sig. = 0.06 > 0.05). Detailed interpretations of these effects were derived from the regression coefficient results presented in Table 7.

Table 7. Coefficient results.

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	48.427	0.416	–	
Gender	-1.160	0.191	-0.331	

4.5. *Qualitative feedback from respondents.*

Additional insights were obtained through focus group discussions with selected respondents. Overall, participants reported that Wikipura was easy to use, particularly due to its clear navigation and accessible interface. Most respondents indicated that the platform could be accessed easily and that the menu structure was generally understandable. However, several respondents noted that they experienced difficulty locating certain articles about specific Hindu temples because the category structure was perceived as less organized. Regarding the content, most respondents agreed that the articles were informative and provided valuable information about Balinese Hindu temples, particularly in terms of their history, location, functions, and the deities worshipped in each temple.

In terms of visual presentation, the images included in each article were considered representative of the temples' actual conditions. Nevertheless, several respondents suggested that additional multimedia elements, such as videos, could further enhance the user experience. Some participants also proposed the inclusion of virtual reality–based virtual tours to provide a more immersive experience, particularly for users who had never visited the temples. With respect to language use, respondents generally agreed that the articles were written in clear and understandable language and were concise enough to provide introductory information. However, several participants suggested adding a comment section to each article so that users could discuss and exchange information about the temples. Other suggestions focused on technical improvements. Respondents recommended increasing Wikipura's bandwidth to allow faster access and support a larger number of users simultaneously. Additionally, they proposed developing a mobile application version of Wikipura that could be installed on smartphones. Integrating GPS location features for each temple was also suggested, as it would enable users to locate temples more easily and facilitate visits to the sites.

5. Discussion

The results of this study provide valuable insights into the acceptance of young Balinese Hindus toward Wikipura, an online bilingual encyclopedia dedicated to Hindu temples in Bali. The high level of acceptance among both male and female respondents indicates that young Balinese perceive Wikipura as both useful and easy to use for obtaining information about Hindu temples. This suggests that Wikipura has strong potential as an effective medium for disseminating information about Balinese culture, particularly Hindu temples. These findings are consistent with the Technology Acceptance Model (TAM), which identifies perceived usefulness (PU) and perceived ease of use (PEOU) as key determinants of technology acceptance [14].

This study also found that gender influences Wikipura acceptance, with male respondents showing higher acceptance than female respondents. This aligns with previous research, which has documented gender differences in technology adoption, noting that males often exhibit greater interest in technology and are more likely to accept new technological tools [14, 42], [43]. In contrast, no significant differences were observed based on educational background between senior high school graduates and higher education students. This may be due to the widespread exposure to similar digital technologies at both education levels. Additionally, the respondents, as members of Generation Z, are digital natives, highly accustomed to using technology in daily life [30–32]. These findings highlight that well-designed educational

technologies can be inclusive and effective across diverse user groups, promoting equal access to learning resources. The success of Wikipura in facilitating information dissemination about Balinese Hindu temples demonstrates the broader potential of digital platforms in cultural heritage preservation and education. This supports prior studies that emphasize the role of digital tools in making cultural and historical knowledge more accessible and engaging [25], [29, [44–46]. By providing an interactive and comprehensive resource, Wikipura contributes significantly to the preservation of cultural heritage and the promotion of Balinese Hindu education.

From a practical perspective, the study has several implications for educational practice. First, it underscores the importance of integrating digital media, such as Wikipura, into curricula to enhance cultural preservation. The high acceptance levels and positive impacts of PU and PEOU highlight the necessity of designing educational technologies that are practical, user-friendly, and culturally relevant. Second, the minimal gender differences in acceptance indicate that Wikipura can foster gender equality in education, providing equal opportunities for all learners to engage with digital cultural resources. The study also contributes theoretically by extending TAM to the domain of cultural education. The findings provide empirical support for the relevance of TAM constructs in predicting technology acceptance within the context of cultural learning among Balinese Hindu youth.

6. Conclusion

This study investigated the acceptance of Wikipura, an online bilingual encyclopedia for Hindu temples in Bali, among young Balinese Hindus. The findings revealed high acceptance levels among both male and female respondents, with no significant gender differences in perceived usefulness, perceived ease of use, or overall acceptance. Perceived usefulness and perceived ease of use were identified as significant predictors of acceptance, confirming the relevance of the Technology Acceptance Model (TAM) in this cultural education context. The results highlight the strong potential of digital platforms such as Wikipura to serve not only as informational tools but also as strategic media for cultural transmission, particularly among Generation Z who are highly engaged with digital environments. The consistently high acceptance across educational backgrounds further indicates that digital cultural learning platforms can reach diverse user groups effectively, regardless of prior academic exposure.

Moreover, qualitative findings suggest that while the platform is already perceived as useful and user-friendly, future enhancements such as improved content organization, integration of multimedia features, mobile application development, and location-based services could further strengthen user engagement and learning outcomes. These insights emphasize the importance of continuous development and user-centered design in sustaining the relevance of digital cultural platforms. In a broader sense, this study affirms that integrating culturally grounded content with accessible digital technology can play a vital role in preserving and revitalizing local knowledge systems. Wikipura stands as a promising model for digital cultural education, demonstrating that technology-driven initiatives can foster deeper cultural awareness, support heritage preservation, and promote inclusive learning experiences for future generations.

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Competing Interest

The authors declare no competing interests.

Author Contributions

All authors contributed equally to the conceptualization, methodology, data collection, analysis, and manuscript writing. All authors reviewed and approved the final manuscript.

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