# Digital Devotion in the Era of Cyberpilgrimage: Understanding Virtual Pilgrimage Intentions among Older Adults

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## **ABSTRACT**

This study explores the psychological and technological predictors of virtual pilgrimage intentions among older adults in India—a population often excluded from traditional sacred journeys due to age-related constraints. Drawing on frameworks like TAM and UTAUT, and using a quantitative survey design, the study investigates five variables: technology usage and comfort, spiritual identity, passion for travel, health and wellbeing, and family support. Regression analysis revealed that only two predictors, technology readiness and spiritual identity significantly influenced the intention to engage in virtual pilgrimage, accounting for 67.7% of the variance. The findings suggest that spiritual motivation and digital familiarity are more critical than physical or social factors in shaping virtual pilgrimage engagement. This research contributes to the growing literature on cyberpilgrimage and gerontechnology, offering design and policy recommendations for inclusive digital devotional platforms tailored to elderly users.

**Keywords:** Virtual pilgrimage, older adults, Gerontechnology, Technology adoption, Spiritual identity, TAM, UTAUT, Cyberpilgrimage, Digital devotion, Ageing and spirituality, VR engagement

#### INTRODUCTION

The global demographic shift towards an aging population has motivated researchers and practitioners to explore how technology can support well-being, social inclusion and spiritual engagement among older adults (Chen & Chan, 2011; Venkatesh et al., 2003). In India, where spirituality and religious practice are culturally embedded, traditional pilgrimages are central to elder identity and mental health. However, numerous older adults confront physical, financial or mobility constraints that hinder travel to sacred sites (Kalantari et al.,2022; Srifar,2018). As a result, immersive technologies such as virtual reality (VR) and 360° tours are increasingly being leveraged to replicate pilgrimage experiences digitally.

Virtual pilgrimage constructs- seen as "mythscapes"- enable a form of sacred presence and emotional engagement through digital means (MacWilliams, 2002; Tran & Davies, 2025). Scholars have explored virtual religious practices qualitatively, revealing their potential to maintain spiritual identity and symbolic meaning when physical access is limited (Tran & Davies, 2025). Despite this, there remains a notable deficiency in quantitative research especially concerning the psychological and social predictor of virtual pilgrimage intentions among elderly populations in India.

Rooted in the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), this study investigates five constructs influencing elders' intention to engage in virtual pilgrimage: Firstly, technology usage and comfort- ease of use, perceived usefulness, and hedonic enjoyment are known as predictors of technology adoption in older adults. (Kalantari et al., 2022). Secondly, a robust spiritual self-concept encourages engagement with sacred digital spaces. (MacWilliams,2002). Thirdly, emotional satisfaction derived from exploration is linked to VR travel engagement in older adults (Srifar,2018; Kalantari et. al.,2022). Fourthly, VR experiences have been associated with improved mood, cognitive stimulation, and reduced loneliness in elderly. Fifth, social influence, particularly from family, plays a critical role in elderly acceptance of technology (Chen & Chan, 2011).

## **Digital Devotion**

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Digital devotion refers to the phenomenon wherein individuals engage in religious, spiritual, or devotional activities through digital platforms. In recent, years this trend has become increasingly prevalent, especially following that rollout of broadband internet and mobile technologies. Globally, online religious services-including live-streamed worship, e-pujas, and spiritual forums- have seen an exponential growth, with many congregations' reporting participation increases of over 50 % since 2020 (PHDCCI & KPMG,2024). This rise has been driven not only by technological accessibility but also due to the COVID-19 pandemic, changing behavioural patterns, and demand for self-improvement experiences. (PHDCCI & KPMG,2024)

In India, digital devotion has taken root strongly in the post-COVID era. A report by KPMG in India highlighted that nearly 60% of domestic spiritual tourism is now digitally mediated, through live-streamed ceremonies, online darshans, and temple apps (PHDCCI & KPMG,2024). Platforms like Durlabh Darshan allow devotees to engage in VR- based darshan experiences for as low as INR 2,500 per year, making spiritual access more affordable and portable across economic strata (Vipat,2024). These developments show a clear shift in devotional practices towards technology-enabled spiritual participation.

## Cyberpilgrimage

Cyberpilgrimage extends digital devotion into immersive, symbolic journeys, recreating the essence of a pilgrimage in a virtual environment. Kaburuan and Chen (2013) describe cyberpilgrimage as pilgrimages conducted within digital environments such as Second Life- as emerging spaces for religious communities, with reports of over, 1,000 regular devotees attending online services across Abrahamic and other faith traditions. Such spaces offer special presence, ritual continuity, and spiritual meaning even when users are physically distant.

Research has also addressed the authenticity and acceptability off cyberpilgrimage. Bell (2003) coined the term "mythscapes" to describe symbolic sacred spaces recreated digitally, supporting religious identity and offering "spiritual benefit" without the need for physical travel. While technological limitations and spiritual scepticism remain- some traditionalists question the legitimacy of virtual rituals. Nevertheless, studies in India have shown increasing adoption among younger priests and operators who see technology as "faithtech" that expands reach without detracting from spiritual merit (Chaurasia, 2024).

## Virtual pilgrimage intentions in older adults

Older adults increasingly view virtual pilgrimage as an extension of digital devotion and cyberpilgrimage. A study grounded in behavioural reasoning theory found that older adults are motivated by reasons such as health safety, accessibility, and the ability to engage in spiritual practices when physical travel is constrained (Raj et. al.,2023). Similarly, global- lockdown enforced events such as the "E-Pilgrimage" livestream from Lourdes in 2020 captured thousands of followers, demonstrating pent-up demand and acceptance of digital pilgrimage formats (Bockman et al.,2021).

Qualitative research shows that elderly users experience emotional resonance, mood enhancement and nostalgia when using VR-based time-travel or memory-recall apps, which can be analogous to pilgrimage experiences (Muslu et al.,2025). Importantly, VR interfaces designed for older users- minimizing complexity and simulating real-world navigation- further enhance intention to use by reducing technological barriers (Srifar, 2018). While specific large-scale quantitative data on virtual pilgrimage intentions in India remains limited, these studies collectively support the premise that older adults perceive significant personal value in virtual pilgrimage, bridging spiritual, emotional and practical needs.

## REVIEW OF LITERATURE

#### Factors affecting virtual pilgrimage intentions among older adults

## **Technology Usage & Comfort**

The Technology Acceptance Model (TAM), along with UTAUT, frames perceived usefulness, ease of use, and social influence as direct determinants of behavioural intention (Davis, 1989). For older adults, perceived ease and usefulness strongly correlate with intention to use technologies such as VR and healthcare applications

(Kalantari et. al,2022). Notably, VR interventions tailored for elderly populations demonstrate high engagement when interfaces prioritize visual clarity, navigation simplicity, and slow movement to reduce disorientation (Srifar,2018).

## **Spiritual Identity**

The concept of virtual pilgrimage has been theorized metaphorically as "mythscapes", Immersive environments facilitating continued spiritual identity and sacred presence through digital means (Tran & Davies, 2025). Such environments enable older adults to maintain rituals and contemplative spiritual practices despite physical limitations (Tran & Davies, 2025).

#### **Passion for Travel**

Immersive virtual travel platforms allow older users to rekindle travel interest and emotional engagement. Srifar (2018) reported participant statements such as "I feel like I did actually travel there," emphasizing travel passion as a driver of VR adoption. Likewise, Kalantari et al. (2022) found that social VR programs improved engagement and were perceived as enjoyable and usable among older participants.

# Health and Well-Being

Virtual and nature-based VR experiences have demonstrated potential to improve mood, reduce loneliness, and support cognitive engagement in elderly populations (Srifar,2018). The therapeutic dimensions of VR highlight virtual pilgrimage as a promising intervention for emotional and psychological well-being.

## Family support

In line with UTAUT, social influence from family significantly predicts older adults' technology adoption behaviours. Meta-analytic evidence supports social influence as a central factor in intention to use digital tools among the elderly (Chen & Chan, 2011)

## RESEARCH METHODS

#### Aim

The present study aimed to investigate the adoption of intention of virtual pilgrimage among older adults and identify key factors that either encourage or discourage participation in such digital religious experiences.

## **Objectives**

Based on the literature review the study tries fulfils three objectives:

- i) To investigate the adoption of virtual pilgrimage among older adults.
- ii) To explore the factors that influence the adoption of virtual pilgrimage.
- iii) To understand factors discouraging participants from considering virtual pilgrimage

## **Conceptual Framework and Hypotheses**

## **Hypotheses**

- H<sub>1</sub>: Technology usage and comfort influences virtual pilgrimage visit intentions.
- H<sub>2</sub>: Spiritual identity influences virtual pilgrimage visit intentions.
- H<sub>3</sub>: Passion for travel influences virtual pilgrimage visit intentions.
- H<sub>4</sub>: Health and wellbeing influence virtual pilgrimage visit intentions.
- H<sub>5</sub>: Family support influences virtual pilgrimage visits intentions.

# Conceptual framework

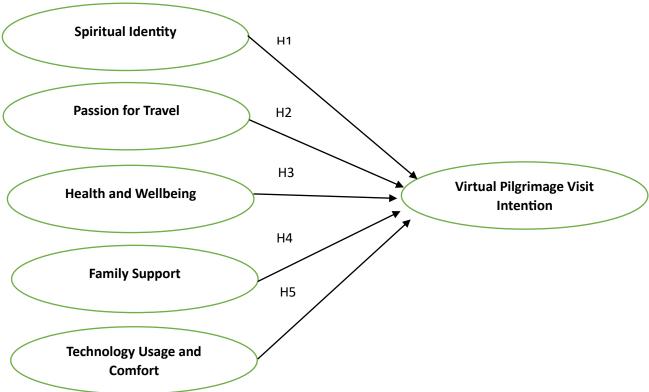


Figure 1: Conceptual Framework

## Research Design

A quantitative survey design was employed. The design was selected to allow for the statistical testing of hypothesized relationships using regression analysis.

## **Participants and Sampling**

The study used convenience sampling to collect data from a sample of 78 older adults residing in Delhi-NCR region. Participants were in the age range from 60- 80 years and above. The inclusion criteria required participants to be aged 60 or older, have working knowledge of English and capable of responding to online survey.

# **Data Collection**

Data was collected during September to December 2024 using Google Forms. Participants were recruited through community centres, religious organizations, and senior citizen informal groups. Informed consent was informed before participation; The questionnaire was self-prepared and designed to measure the variables relevant to the study hypotheses using Likert-type scale. The survey questions to measure virtual pilgrimage intentions are presented in Table 1. Table 2 depicts the survey questions to measure technology usage & comfort, spiritual identity, passion for travel, health & well-being & family support

Table 1: Survey Questions to measure Virtual pilgrimage intentions

# Questions

- 1. I find the idea of visiting religious places online appealing
- 2. If given the opportunity, I would definitely take part in virtual pilgrimage experiences.
- 3. I will try to explore different virtual pilgrimage options available online.
- 4. I believe that virtual pilgrimage can be valuable alternative to physical pilgrimages.
- 5. What factors will discourage you from considering virtual pilgrimage

Table 2. Survey Questions to measure technology usage & comfort, spiritual identity, passion for travel, health & well-being & family support

Construct	Questions
Technology usage &	I use technology regularly for various tasks, including online activities and communication
comfort	I enjoy learning about new technology and adapt to new technological devices or platforms easily.
	I enjoy watching online religious events and places.
	I play/ have played virtual games
Spiritual Identity	I consider myself a religious person who actively practices my faith.
	I regularly visit religious places (e.g., temples, mosques, churches) in person.
	I have a strong desire to connect with my faith by visiting sacred places/ pilgrimage
Passion for travel	I enjoy exploring new places and experiencing different cultures through travel.
	I believe that tourism enriches my life by providing unique experiences and memories.
	I often seek opportunities to travel and discover new destinations whenever I can.
Health & Wellbeing	I consider myself to be physically fit
C	I find challenging to move around freely, which can limit my ability to join in on social activities.
	I actively engage in activities that promote my physical and mental well-being
Family Support	My family members are always willing to help me in need
	My family often invites me to join them in activities and outings, which makes me feel valued and connected
	I can openly share my thoughts and feelings with my family without fear of judgement.

## 4 Results

Table 3. Demographic Profile Table

Category	Subgroup	Frequency	Percentage
Age	60–69 years	37	18.6%
	70–79 years	157	<b>78.6%</b>
	80+ years	6	2.8%
Living Arrangement	With Spouse	123	61.4%
	With Children/Grandchildren	66	32.9%
	Alone	12	5.9%
Gender	Male	174	87.1%
	Female	26	12.9%
Religion	Hindu	171	85.5%
	Muslim	12	6.0%
	Christian	7	3.5%
	Sikh	6	3.0%
	Other (Buddhist, Jain, etc.)	4	2.0%

The survey sample (table 3) primarily comprised of older adults aged 70 to 79, accounting for nearly four-fifths of the total respondents (78.6%). This dominant age group suggests the research targeted individuals likely to engage with spiritual and digital practices during their later life stage. The next largest age bracket was 60–69 years (18.6%), while those aged 80 and above were notably fewer (2.8%).

Regarding living arrangements, most participants resided with a spouse (61.4%), indicating the potential emotional and logistical support available for digital engagement at home. About one-third (32.9%) lived with children or grandchildren, reflecting multigenerational households where younger family members might aid in

technology use. A small but significant minority (5.9%) lived alone, possibly representing the cohort most vulnerable to social isolation and thus more receptive to virtual pilgrimage formats.

Gender distribution skewed heavily male, with 87.1% of respondents identifying as male and only 12.9% as female. This imbalance may relate to cultural or sampling factors and suggests that future studies should examine gender-based access and interest in virtual religious participation.

In terms of religious identity, the majority of participants identified as Hindu (85.5%), followed by Muslims (6.0%), Christians (3.5%), and Sikhs (3.0%). A small remainder (2.0%) categorized themselves under "Other," including Buddhists, Jains, those who preferred not to specify, or those practicing hybrid spiritual traditions. This distribution reflects the religious landscape of the Delhi NCR region and supports context-specific interpretations of virtual pilgrimage receptivity.

## **Regression Analysis**

Table 4. Model Summary of Multiple Regression for predicting virtual pilgrimage visit intention

Model	R	$\mathbb{R}^2$	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.714	.677	.628	1.073

Note. Predictors: (Constant), Family support, Technology usage and comfort, passion for travel, spiritual identity, health and wellbeing.

Dependent Variable: Virtual Pilgrimage Visit Intention

Table 5. ANOVA summary for Regression Model

Source	SS	df	MS	F	p
Regression	44.622	5	8.924	7.748	<.001
Residual	73.721	64	1.152		
Total	118.343	69			

Note. Predictors: (Constant), Family support, Technology usage and comfort, passion for travel, spiritual identity, health and wellbeing.

Dependent Variable: Virtual Pilgrimage Visit Intention

Table 6. Regression coefficients for Predicting Virtual Pilgrimage Visit Intention

Predictor	В	SE	β	t	p	
(Constant)	0.053	0.656	-	0.081	.935	
Technology usage & comfort	0.457	0.138	.373	3.311	.002	
Spiritual Identity	.327	.131	.292	2.499	.015	
Passion for travel	.117	.106	.126	1.104	.274	
Health & well being	-0.039	0.157	-0.30	-0.248	.805	
Family support	.046	.151	.036	.307	.760	

**Note.** B = unstandardized regression coefficient; SE = standard error;  $\beta$ = standardized beta coefficient

The analysis reveals a statistically significant model for predicting virtual pilgrimage visit intention (table 4). With an R value of .714 and an R<sup>2</sup> of .677, about 68% of the variance in pilgrimage intention is explained by the combination of predictors namely technology usage and comfort, spiritual identity, passion for travel, health and wellbeing, and family support. The adjusted R<sup>2</sup> of .628 confirms that this explanatory power holds even when accounting for sample size and predictor count.

The ANOVA results (table 5) further support the strength of the model, showing that the regression equation is robust (F = 7.748, p < .001). This indicates that the predictor variables, taken together, significantly contribute to explaining the dependent variable.

When assessing individual predictors (table 6), two stand out. First, technology usage and comfort emerged as the strongest positive contributor, highlighting how digital familiarity empowers individuals to engage in virtual religious experiences. Second, spiritual identity also showed a significant positive influence, suggesting that a person's sense of spiritual self meaningfully aligns with their openness to virtual pilgrimage.

Other predictors, passion for travel, family support, and health & wellbeing did not significantly contribute to the model. This may imply that while travel enthusiasm and physical or social factors play a role in traditional pilgrimage, they do not translate as powerfully in virtual contexts.

Overall, the findings suggest that readiness to navigate technology and the depth of spiritual identity are key motivators for embracing virtual pilgrimage. These insights have meaningful implications for designing culturally sensitive and digitally inclusive platforms, especially in contexts where physical travel may be limited by age, health, or socio-economic constraints.

## **DISCUSSION**

The core objective of this study was to investigate the adoption of intention of virtual pilgrimage among older adults and identify key factors that either encourage or discourage participation in such digital religious experiences. And to understand how, the identified five factors, i.e. technology usage and comfort, spiritual identity, passion for travel, health and wellbeing, and family support contribute to older adults' intentions to engage in virtual pilgrimage. The regression analysis revealed that only two predictors, technology usage and comfort ( $\beta = .373$ , p = .002) and spiritual identity ( $\beta = .292$ , p = .015) had a statistically significant impact, thereby supporting Hypotheses H1 and H2, while H3 (passion for travel), H4 (health & wellbeing), and H5 (family support) were not substantiated.

These findings affirm earlier scholarship on technology acceptance among older adults. Kalantari et al. (2022) highlighted that the enjoyment and ease of VR usage significantly increase seniors' willingness to explore digital environments. Similarly, the Self-Determination Theory and STAM framework (Chen & Chen, 2011; Chen et al., 2024) establish that perceived ease of use and self-efficacy foster positive attitudes toward technological interfaces in aging populations. The present study reinforces this trajectory, illustrating that confidence and comfort in using digital tools are pivotal motivators for engaging in virtual pilgrimage platforms.

The significance of spiritual identity as a predictor adds further depth to these findings. Prior qualitative studies on virtual religious practices suggest that older adults view these platforms not simply as travel substitutes, but as spiritually resonant spaces enabling ritual continuity and religious fulfilment. The present results echo these insights, demonstrating that those with stronger spiritual self-conceptions are more likely to accept and engage with virtual pilgrimage experiences. This confirms H2, and affirms the emerging understanding that spirituality—not experiential travel—is the primary motivational axis for religious VR immersion among seniors.

By contrast, passion for travel did not significantly predict virtual pilgrimage intention. Although previous exploratory studies (e.g., Srifar, 2018) reported enjoyment among older adults from VR-based travel simulations, the findings here suggest that the nature of pilgrimage—rooted in religious devotion—differs fundamentally from recreational or adventure tourism. Thus, while travel enthusiasm may drive participation in general VR tourism applications, it appears less influential in motivating spiritually-oriented virtual engagement, explaining the non-significance of H3.

Similarly, no significant relationship was found between health and wellbeing motivations and virtual pilgrimage intention. This contrasts with the therapeutic promise noted by Kalantari et al. (2022), where VR experiences improved mood and reduced loneliness. Two possible explanations merit consideration: first, the participants in this study may have perceived spiritual benefit as superseding psychological wellness, especially

in a religious context; second, the non-standardized measures for wellbeing might have limited sensitivity, making it harder to detect meaningful correlations within the dataset thus nullifying H4.

Lastly, family support, while emphasized in sociotechnical models (Chan et al., 2024), did not emerge as a significant predictor. This deviation could be contextually grounded. Since the sample was drawn from a relatively urban and culturally tight-knit region (Delhi NCR), many participants might have had consistent familial involvement, minimizing variability and reducing its statistical impact. Alternatively, family support may play a facilitative rather than predictive role functioning more prominently during initial onboarding to technology than during intention formulation itself. As such, H5 was not supported, inviting future research to disaggregate the direct and indirect roles of social reinforcement in technology adoption.

## **LIMITATIONS**

Thought not many studies have been conducted to focus on the virtual pilgrimage intentions of the older adults this study offers very insightful and promising results however; it is not without its limitations. The major limitations of this study are-*first*, the use of convenience sampling from Delhi NCR limits generatability. Future studies can aim for stratified random sampling across regions. *Second*, reliance on self- reported data for intentions introduces potential biases, such as social desirability or mis intention of actual behaviour. *Third*, the study captures intentions at a single point in time. Longitudinal or experimental designs are needed to examine actual usage and longitudinal predictors. *Fourth*, standardized tools were not used to collect data which can hinder the nuanced measurement of the constructs

#### **IMPLICATIONS**

The findings of this study offer valuable contributions to both theory and practice in the domains of gerontechnology and virtual spirituality. Empirically, the results reinforce the applicability of Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) within aging populations, confirming that perceptions of ease of use and spiritual identity are significant predictors of virtual pilgrimage intention among older adults. These insights suggest that beyond functional usability, emotionally and spiritually resonant motivations are critical in shaping technology adoption in this context.

For developers and designers of virtual pilgrimage platforms, this implies a strong imperative to prioritize user-centric design principles tailored for older users. Features such as simplified navigation, minimal motion sickness triggers, and cognitive alignment through familiar mental models (e.g., temple layouts, ritual cues, local language interfaces) should be emphasized to reduce entry barriers and enhance experiential comfort. Accessibility enhancements including adjustable fonts, guided prompts, and culturally meaningful visual environments can make virtual spiritual engagement more intuitive and inclusive. Although family support did not emerge as a statistically significant predictor in this study, its role as a facilitator of initial engagement should not be overlooked. Older adults may still benefit from practical assistance during onboarding stages, such as help with login procedures, device setup, or explanatory walkthroughs. Therefore, platform outreach should include intergenerational support mechanisms—for instance, instructional videos for caregivers, offline access features, or community-based tech ambassadors who bridge generational gaps in digital fluency. Ultimately, these implications affirm that designing virtual pilgrimage tools for older adults requires a nuanced understanding of technological, emotional, and spiritual dynamics—blending ergonomic precision with culturally embedded meaning to create not just usable platforms, but transformative experiences.

## **CONCLUSION**

This study demonstrates that technology usage and comfort and spiritual identity are significant predictors of older adults' intentions to engage in virtual pilgrimage. Conversely, passion for travel, health & wellbeing and family support were not significant predictors within this context. The findings highlight the importance of designing virtual pilgrimage platforms that are both technically accessible and spiritually meaningful for older adults. Future research should prioritise longitudinal designs, diversified sampling, and improved measurement instruments to further clarify the nuanced roles of health and social factors in digital devotional practices.

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