

Research Article

Influence Of Demographic Factors On Attitude Towards Technology Usage And Pilgrimage Experience: Evidence From North East Pilgrim Site

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Abstract: The rapid integration of digital technologies has significantly transformed the tourism sector, influencing travel planning, destination engagement, and visitor experience. This transformation is increasingly evident in pilgrimage tourism, where traditional spiritual practices are intersecting with technology-enabled services. The present study investigates the impact of selected demographic factors on tourists' attitudes towards the usage of technology and overall tourism experience, with specific reference to pilgrimage sites in Northeast India. The region represents a distinctive spiritual landscape characterized by diverse religious traditions, sacred sites, and emerging pilgrimage destinations. In this study, quantitative research methodology was adopted using primary data obtained from a sample of 438 people who visited pilgrimage destinations in the northeastern region of India. Age, gender, occupation, and monthly income were regarded as independent variables, whereas attitude toward technological application and tourism experience were viewed as the dependent variable. One-way ANOVA was conducted using the Statistical Package for Social Sciences (SPSS) The study contributes to the growing body of literature on technology adoption in pilgrimage tourism by demonstrating that demographic differences do not significantly shape technology-related attitudes in the context of Northeast India. The findings offer important managerial and policy implications, indicating that technology-driven tourism initiatives can be implemented without extensive demographic segmentation. The research supports the view that digital technologies are becoming an integral and normalized component of contemporary pilgrimage tourism experiences in emerging spiritual destinations.

Keywords: Pilgrimage Tourism in Northeast ; Technology Usage; Demographic Factors; Tourism Experience; ANOVA.

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INTRODUCTION

Tourism is often stated as the escape from one's day to day way of living to exploring new ways of living. With ever changing dynamics of today's industry the tourism has also inculcated various shifts from its traditional way of travel to more modernized way of travel inclusive of digitization. Technology in recent times have become an integral part of everyday life in recent times, said so pilgrimage tourism is not also not left untouched by technology integration as we have seen in the recent events of Khumbu mela (Sharma & Behera, 2025) as stated in their study. Pilgrimage tourism is not only centric to the spirituality of people it's also dwells with the overall experience a pilgrim (tourist) with the travel. With intervention of technology , pilgrimage tourism is no longer only limited to its traditional approaches where it was confined to age old methods believes and how it is shaping the attitude of travels with respect to usage of technology and how its influences their tourism experience. North-Easter states have always been a epitome of spiritual destinations and sites with a rich history that dates back to mythological stories and ancient assamese kingdoms and satras. However, this regions with such diverse sacred sites spreads across the states of Assam, Manipur, Tripura, Meghalaya to mention a few that receives a good amount of pilgrim(tourist) foot fall each year with special mention to Assam and Tripura Sakthi pith shrines, yet this destination has not been explored in terms of digitization. As in recent time travel has crossed the bar of age , income or occupation , to study these demographic factors with respect to pilgrims' attitude towards technology usage

is to be considered. One of the core understandings of this study is How a person thinks about, embraces, and incorporates these technological devices in his/her travelling is affected by different personal factors, one of the majors being demographics factors. Age, gender, occupation, and average monthly income are factors that not only describe who the person is but also carry with them certain histories of exposure, socio-cultural backgrounds, and limitations in terms of financial resources to incorporate the latest technological inventions. In case of pilgrimage tourism, when the traveller's main intention is to achieve some kind of spiritual growth rather than entertainment, these factors often plays an important role in shaping tourist attitude of accepting this technological inclusion and ultimately how they impact their experiences. These factors often results in uneven adoption of technological usage in many pilgrims' sites. Many researchers have mentioned about technology acceptance in various field, but this acceptance with respect to pilgrim tourism at northeastern states of India is less explored(Berry, 2025)in their study states that usage of technology is shaping the religious travels by enhancing their experience by incorporating digital services and tools. .The study aims to understand how the demographic factors influences the attitude of pilgrims towards technology usage and how they shape the pilgrim's overall tourism experience in the northeastern pilgrimage sites.

LITERATURE REVIEW :

(Odum & Boukamba, 2025) The authors highlights the role of psychographic and demographic factors with respect to tourism , it states that knowledge about tourists demographic profile results in providing better tourist experience resulting in proper utilization of the destinations unique selling points.

(Konaransinghe & Squire 2025.) In their study states that the usage of digital technology increases the tourism experience, it is ultimately dependent on the willingness and ability of the tourist to use the platforms. He urges that digital literacy is significantly important for fruitful digital tourism experience.

(Wangmo & Dubey, 2024) in their paper highlights the importance of considering the demographic profile of the tourist with respect to Sikkim, they states that considering this factors supports in better understanding of tourist segmentation and demography to improve their overall experience.

(Hadi & Aslam, 2023) The study portrays that advertising through tele-communication (mobile) devices has a strong impact on demographic profile of the consumer, shaping their attitude toward a product or service.

(Bak & Szczecinska, 2020) in their study highlights the influence of demographic factors at global level stating that life expectancy of an tourist has an impact on their tourism plans and demand making it a point for the tourist service provider to crater to this needs. They also states that safety and environmental concerns are to be taken into consideration while the traveller group is of older section.

(Hussein, 2017) The author in his study with respect to technology Acceptance model states that attitude forms the basis of student's intention to incorporate e-learning platforms thus stating that a positive willingness of the user plays a significant role in technology acceptance.

(Irimias et al., 2016) in their study states that age plays a significant role in tourist attitude, portraying that the requirement of younger generation tourist are more into experience whereas the older tourist are more into educational and national values with the sacred destinations. They state that tourist often portrays their engagement with a destination by purchasing souvenirs during their visits.

RESEARCH METHODOLOGY:

The study adopts an analytical research method. The paper aims to study the influence of demographic factors on pilgrims' attitude towards usage of technology and their tourism experiences with respect to northeastern states. The study has not only simply described the demographic profile but have also tried draw inference hwo its shapes a pilgrims overall tourism experience. The demographic variable i.e Age, Gender, Monthly Income and Occupation are considered as the independent variable and the attitude towards technology usage and pilgrimage experience as the dependent variable for the study. Convenience sampling techniques was implemented for collection of primary data. The responses

3.1 Instrument for data collection:

The research instrument used for for collection is an structured questionnaire prepared after review of various literature review on the demographic factors, standard scale of technology acceptance model (El Archi & Benbba, 2023). The demographic factor(Age, gender, occupation and monthly income) were considered for the study and seven statement questions based on attitude towards technology usage

3.2 Method of Data Collection:

Questionnaire was used to collected the primary responses using both online and offline modes. The online questionnaire

was prepared using the google form and the same was circulated through various social media platforms for collection of responses. The primary data was also collected through offline mode by visiting various pilgrimage destinations. 5 point likert scale was used to measure the statement questions where 1-Strongly disagree and 5 – Strongly Agree . To measure the overall pilgrimage experience 5-point liker scale was used where 1- Highly Dissatisfied and 5 Highly Satisfied.

3.3 Technique of Analysis:

Descriptive statistical method and Anova (One-way Analysis of Variance) is implemented for data interpretation of 438 responses using SPSS software.

ANALYSIS AND INTERPRETATION:

Table: 4.1 Respondent demographic profile

Characteristics	Profile	Frequency	Percent
Age Group	Below 20	117	26.71%
	20–40	270	61.64%
	40–50	42	9.59%
	50 above	9	2.05%
Gender	Male	240	54.79%
	Female	197	44.98%
	Others	1	0.23%
Occupation	Private Sector	195	44.52%
	Public Sector	142	32.42%
	Self-employed	41	9.36%
	Student	60	13.70%
Monthly Income	Below 5000	68	15.53%
	5000–10000	69	15.75%
	10001–15000	59	13.47%
	15001–20000	94	21.46%
	20001–25000	35	7.99%
	25000 above	113	25.80%

Source : Primary Data

Interpretation :

The above table consists the demographic profiling of 438 respondents under the category of the identified demographic parameters of Age, Gender, Occupation and monthly Income. The table states that 270 respondents belong to the age group of 20-40 years of age forms the major section of respondent followed by Below20 category with 117 respondents falling under this bandwidth. Whereas respondents falling in the age bandwidth of 40 to above 50 with total of 51 respondents in total. Under the gender category around 240 respondents are male and 197 respondents are female showcasing a balance respondent under this category showcasing an inclusive participation of both the genders in pilgrimage tourism and technology usage attitude. The Occupation profile of the respondents depicts a diverse group with 195 respondents are private sector employees followed by 142 respondents from public sector together forming 77 % of the respondent

The income pattern of the sample had the highest degree of variation amongst the four demographic attributes under study, with the survey subjects distributed across the six income bands in unequal numbers. The above ₹25,000 per month band emerged as the most populous income sub-group, with 113 individuals or 25.80 percent of the entire sample falling in this group. This was followed by the ₹15,001 to ₹20,000 band, contributing 94 individuals amounting to 21.46 percent. In all, the two high income categories made up 47.26 percent of the sample, implying a relatively higher representation of the upper income segments among the survey respondents Around 68 individuals with monthly incomes less than ₹5,000 and another 69 individuals with monthly incomes ranging between ₹5,000 and ₹10,000. The two lower income segments thus amounted to a combined 31.28 percent of the sample size, or about one-third of the entire survey population.

DATA ANALYSIS AND FINDINGS

4.2 Age As The Demographic Factor

To examine the influence of age on tourists' attitudes toward technology adoption and tourism experiences, a One-way ANOVA was conducted. For the purpose of this analysis, respondents were classified into four distinct age categories: (a) Below 20, (b) 20–40, (c) 40–50, and (d) Above 50, which were subsequently assigned numerical codes of 0, 1, 2, and 3, respectively, to facilitate processing within SPSS. In this analytical framework, tourists' attitudes toward technology usage and tourism experience were designated as the dependent variable (V2), while age served as the independent variable (V1).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	.004	.953b
	Residual	151.962	436	.349		
	Total	151.963	437			
a. Dependent Variable: attitude towards usage of technology and tourism experience.						
b. Predictors: (Constant), Age						

Source: SPSS Output

4.1.1 Hypothesis on Age

H0 : Age doesn't significantly influence attitude towards technology usage and pilgrimage experience.

The results shown in the table above, the calculated value of significance ($p = 0.953$) significantly exceeds the critical level of significance ($\alpha = 0.05$). Therefore, there is not enough statistical evidence for rejecting the null hypothesis. Based on the aforementioned results, it is possible to conclude that age does not have a substantial effect on the adoption of technology by tourists and their general perception of tourism.

4.4.2 Gender

Following a similar analytical approach, a one-way ANOVA test was used to examine the effect of gender on the attitude of tourists towards the use of technology and tourism experiences. Gender was assumed to be the independent variable (V1) in the above scenario, while the attitude towards technology usage and tourism experiences was taken to be the dependent variable (V2). For this case, gender was grouped into three groups namely: (a) male (b) female, and (c) others. Males = 0, females = 1, and others = 3 respectively. The findings of ANOVA for the above are displayed in the table below:

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.428	1	1.428	5.12	0.024
	Residual	150.535	436	0.345		
	Total	151.963	437			
a. Dependent Variable: attitude towards usage of technology and tourism experience.						
b. Predictors: (Constant), Gender						

Source : SPSS Output

4.4.2.1 Hypothesis for Gender.

H0: Gender doesn't significantly influence attitude towards technology usage and pilgrimage experience.

As can be seen from Table 3.2.1, the p-value (0.024) is less than the alpha level (0.05). Thus, the null hypothesis must be rejected, implying that gender has a statistically significant effect on attitudes towards technological use and the tourist experience in the context of this research

4.4.3 Occupation

To examine the effect of occupation on tourists' attitudes toward technology usage and overall tourism experience, a One-way ANOVA was conducted. For this study, occupational background is classified into four categories: Private Sector Employee, Public Sector Employee, Self-Employed, and Students. To facilitate analysis within SPSS, these categories are assigned numerical codes as follows: Private Sector Employee = 0, Public Sector Employee = 1, Self-Employed = 2, and Students = 3. In this analytical framework, occupation is treated as the independent variable (V1), while attitudes toward technology usage and tourism experience are designated as the dependent variable (V2).

Model		Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	.456	1	.456	1.312	.253b
	Residual	151.508	436	.347		
	Total	151.963	437			
a. Dependent Variable: attitude towards usage of technology and tourism experience.						
b. Predictors: (Constant), Occupation						

Source: SPSS Output

4.4.3.1 Hypothesis for Occupation:

H0: Occupation doesn't significantly influence attitude towards technology usage and pilgrimage experience.

As can be seen from Table 3.3.1 below, the value of the significance achieved by the researchers ($p = 0.253$) is far above the accepted level of significance ($\alpha = 0.05$). Such findings do not provide adequate statistical basis for rejecting the null hypothesis; hence, it can be concluded that occupation has no impact on tourist attitude towards using technology in tourism.

4.4.4 Monthly Income

The demographic variables monthly income is the last demographic variable considered for this study. The One-way ANOVA test has been used to investigate the influence of different income levels on pilgrims attitudes towards technology usage and tourism experience. The six groups used in classifying monthly income for the purposes of this research include (a) less than ₹5,000, (b) ₹5,000-10,000, (c) ₹10,001-15,000, (d) ₹15,001-20,000, (e) ₹20,001-25,000, and (f) more than ₹25,000. Each category has been coded 0, 1, 2, 3, 4, and 5, respectively, in order to facilitate data analysis using SPSS. Monthly income has been considered as the independent variable (V1), whereas attitudes towards technology use and tourism experience constitute the dependent variable (V2).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.524	1	3.524	4.36	.038
	Residual	148.239	436	.341		
	Total	151.963	437			
a. Dependent Variable: Attitude towards usage of technology and tourism experience.						
b. Predictors: (Constant), Monthly Income						

Source: SPSS output

4.4.4.1 Hypothesis for Monthly Income

H0: Monthly Income doesn't significantly influence attitude towards technology usage and pilgrimage experience.

From the above table 3.4.1 it can be drawn that monthly income does have a significant influence on tourist Attitude towards usage of technology and tourism experience as the P value = .038 is considerably higher than the ($\alpha = 0.05$), stating the monthly income does have significant influence on Attitude towards usage of technology and tourism experience among the respondent considered for this study.

Major Findings Of The Study Or Synthesis Of The Findings

Based on the consolidated demographic data profile, there are several key features of the respondents which can be considered crucial for the context of this study. First of all, the bulk of the sample population is represented by the youth – about 88 percent of the surveyed respondents are less than 40 years old. Secondly, in terms of their gender distribution, the sample population can be regarded as being rather evenly distributed across genders. Finally, in terms of occupation, the sample is characterized by an excess of individuals employed in the formal economy. In terms of income levels, the sample is diverse.

The above analysis states that, pilgrims age does not play a very significant influence in shaping their attitude towards technology usage and over all pilgrimage experience from which we can draw an inference that, as pilgrimage is majorly

about the spirituality its is more push by the devotional factor rather than the technological factors, It also show case that todays young population are also driven by spiritual reasons. However, gender play a significance influence on influencing the pilgrim's attitude with respect to north-eastern states its implies that tourist service provider shall have to curtate services keeping in mind the gender based preferences while customizing their pilgrimage-based services to enhance their pilgrimage experience. Furthermore, along with gender, monthly income also plays a major role in influencing the attitude of pilgrims as often monetary involvement impact their inclination towards the quality digital services one wants to avail or can afford in their daily walks of life. The lower income people are most likely to engage in traditional way of travel rather than a personalised technology-based travel services as the question of affordability also arises for the same. The influence of occupation of an pilgrims doesn't have a much of an significance with repsect t shaping of their attitude as often when people are traveling for spiritual reasons their occupational background are often not of much importance rather their spiritual intent drives their actions and overall experience.

CONCLUSION

Pilgrimage tourism of north-east India in todays worlds is facing a major shift from its traditional ways often by the influence of various factors of which demographic factors is considered to be one of the major factors as it helps in developing the various tourism related services based on the attitude of the pilgrims towards technology usage and its impact on their overall tourism experience. From the above study we can conclude that, understanding this factors not only help in curating more diverse based tourism product and services be it gender based or monthly income based services. The finding also highlights that age and occupation has very less influnce on forming the attitude towards technology usage m as it is more spirituality driven. This research adds to the emerging literature on the adoption of technologies in religious tourism by showing how the motivational, cultural, and spiritual aspects of pilgrim journeys redefine the demographic factors influencing attitude towards technology, beyond what is accounted for by prevailing models, largely formulated within a business and organizational context. This study calls for scholars in the field to adopt a more contextualized perspective in studying the adoption of technologies in religious tourism contexts, while questioning the limits within which established demographic predictors remain valid

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