Examining the Influence of National Park Sustainability and National Park Satisfaction on National Park Behavioural Intentions: A Case Study of Manas National Park, Assam

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Abstract: *National Parks in India serve as vital hubs for biodiversity conservation, attracting a diverse array of visitors for wildlife observation, leisure, and academic research. Sustainability is essential for maintaining the planet's long-term viability by balancing ecological, social, and economic factors. In national parks like Manas National Park, Assam, this balance is crucial for preserving biodiversity and cultural heritage while promoting socio-economic sustainability. This study examines the impact of National Park Sustainability (NPSus) and National Park Satisfaction (NPSat) on National Park Behavioural Intentions (NPBI). By focusing on Manas National Park, the research aims to provide insights into sustainable tourism practices that benefit both the environment and local communities. The study utilized a comprehensive questionnaire with established multi-item scales to assess National Park Sustainability (NPSus), National Park Satisfaction (NPSat), and National Park Behavioural Intentions (NPBI) among 233 national tourists visiting Manas National Park. The SEM analysis reveals that perceived sustainability (NPSus) negatively influences Behavioural intentions (NPBI), while satisfaction (NPSat) does not significantly affect NPBI. Additionally, certain factors positively impact both NPSus and NPBI.*

Keywords: *NPSus, NPBI, NPSat, Wildlife, MNP.*

Introduction

National Parks in India function as crucial centers of attraction, drawing a wide spectrum of visitors interested in exploring the country's rich biodiversity, observing wildlife, engaging in leisurely activities, and conducting academic research. These parks, characterized by their distinctive combination of natural beauty and ecological importance, appeal to both domestic and international travelers. As of January 2023, India boasts 106 national parks covering over 44,000 square kilometers, which constitutes approximately 1.35 percent of the nation's total land area (Desai, 2023). Madhya Pradesh has the highest concentration of national parks, followed by Assam, which includes notable sites such as Manas National Park (MNP). Designated as a UNESCO World Heritage Site, MNP is a sanctuary for a wide array of flora and fauna, including endangered species like the Bengal tiger, Indian elephant, and one-horned rhinoceros, making it a significant destination for wildlife enthusiasts, eco-tourists, and nature lovers. With the rising interest in eco-tourism, the need to balance environmental sustainability with tourism development has become

increasingly pressing. National parks like MNP not only serve as key areas for conservation but also play a pivotal role in promoting eco-tourism, positioning them as essential centers for both tourism and conservation initiatives. The growing influx of tourists poses a significant challenge for park management authorities as they endeavor to sustain the integrity of these pristine environments. As noted by Dilek (2022), sustainability entails the creation of a sustainable world by harmonizing ecological, social, and economic dimensions. Within the context of national parks, achieving sustainability necessitates a careful balance between promoting tourism and preserving the ecological integrity and biological value of these natural sites (Boyd, 2000). To effectively manage the increasing number of visitors, authorities must advocate for responsible tourism practices that protect the fragile ecosystems within the parks. This includes implementing strategies to mitigate the environmental impacts of tourism, raising conservation awareness among visitors, and empowering local communities through socially and economically sustainable initiatives. By adopting this approach, park management can ensure that tourism development is in harmony with the long-term conservation goals of the parks, preventing ecological degradation and fostering sustainable preservation efforts. Sustainability, as defined by Dilek (2022), involves ensuring the planet's long-term viability by balancing ecological, social, and economic factors. In the context of national parks like Manas, this balance is crucial for preserving biodiversity and cultural heritage while fostering socio-economic sustainability through initiatives that benefit local communities. National Park Sustainability focuses on evaluating tourists' satisfaction with their experiences at Manas National Park, including pre-visit expectations, activities like safaris and cultural encounters, and the likelihood of return visits or recommendations. Satisfied tourists, driven by positive experiences, are more likely to revisit and recommend the park to others. National Park Behavioural Intentions (NPBI) refer to tourists' intentions to visit Manas National Park, including their likelihood of returning, recommending the park, or engaging in related behaviors following their experience. The study delves into a comprehensive examination of these three key constructs: National Park Sustainability (NPSus), National Park Satisfaction (NPSat), and their combined influence on National Park Behavioural Intentions (NPBI). This study tries to examine the challenge of balancing tourism development with ecological preservation in national parks, with a particular focus on Manas National Park (MNP), where sustainable tourism practices are essential for preserving biodiversity and ensuring visitor satisfaction. The research seeks to answer two key questions: How does National Park Sustainability (NPSus) influence National Park Behavioural Intentions (NPBI) and how does National Park Satisfaction (NPSat) affect NPBI? The primary objectives are to explore the impact of NPSus on NPBI and to assess the influence of NPSat on NPBI. What sets this study apart is its focus on MNP, an ecologically significant yet underexplored park, and its investigation of the combined effects of sustainability and visitor satisfaction on Behavioural intentions. Using structural equation modeling (SEM), the research tries to provide new insights that can help enhance sustainable tourism practices.

Review of Literature

Manas National Park

Located at the intersection of the Indo-Gangetic and Indo-Malayan biogeographic zones, the Manas Wildlife Sanctuary stands out as the most diverse wildlife sanctuary in India. Positioned on a gently sloping alluvial plain, where forested hills transition into grasslands and tropical forests within the Himalayan Mountain range, the sanctuary hosts a rich array of wildlife, including the tiger, pygmy hog, Indian rhinoceros, and elephants, among other endangered species. The park is situated 41 kilometers north of Barpeta Circuit and 175 kilometers northwest of Guwahati, the regional capital. It spans the Manas River and is bordered to the north by Bhutan's Royal Manas Wildlife Sanctuary and to the south by a densely populated area of Bhutan.

National Park Sustainability (NPSus)

Sustainability, as defined by Dilek (2022), involves ensuring the planet's long-term viability by addressing ecological, social, and economic dimensions. With the rise of over-tourism and its associated environmental impacts, sustainability has become a critical concern within the contemporary tourism industry (Melo, 2022). National parks, which attract significant tourist activity, face particular challenges in maintaining sustainable practices. Their primary mission is to preserve biodiversity and cultural heritage, which are valued both for their intrinsic worth and for the societal benefits provided by ecosystem services (Smith et al., 2021). Manas National Park is especially significant as a refuge for numerous species (Das et al., 2023). The preservation of its flora and fauna highlights the necessity of sustainability, which is crucial for supporting socio-economic sustainability and necessitates initiatives like revenue sharing and integrated tourism cluster development to encourage positive local attitudes toward conservation (Shanaka, 2020). The benefits of the park are perceived across environmental, economic, and social dimensions (Pete et al., 2017).

National Park Satisfaction (NPSat)

National Park Sustainability pertains to tourists' perceptions of their visits to Manas National Park. It involves evaluating tourists' satisfaction across various stages, including pre-purchase expectations and post-purchase experiences. The park offers a diverse array of services to visitors, such as jungle safaris, elephant rides, birdwatching, camping, river rafting, and cultural encounters. Additionally, numerous homestays and resorts cater to the needs of tourists. Tourist engagement positively influences satisfaction with interpretive experiences (Shiuh, 2005), as tourists tend to make rational decisions aligned with their intrinsic motivations when selecting activities (Prebensen, 2004). Favorable Behavioural outcomes include return visits and recommendations to family and friends from those satisfied with their destination choices (Chaudhuri & Verma, 2008; Hu, Kandampully, &Juwaheer, 2009; Hui, Wan, & Ho, 2007).

National Park Behavior Intention (NPBI)

In this present investigation, National Park Behavioural Intentions (NPBI) represent the inclinations of tourists regarding their intentions to visit Manas National Park (MNP). Intention, as elucidated by Bandura (1986), denotes the volition to engage in specific activities, while Anderson (1998) characterizes it as the anticipated actions of customers (tourists) subsequent to a service interaction, encompassing returning, persisting, switching, and participating in favorable or unfavorable word-of-mouth communications regarding the establishment. Oliver (2014) delineates intention as a confirmed propensity to participate in particular behaviors.

Relationship between NPSus and NPBI

National Park Sustainability (NPSus) refers to the implementation of strategies aimed at maintaining ecological balance while fostering responsible tourism. Research generally indicates that these sustainability efforts have a positive effect on tourists' Behavioural intentions, such as their likelihood to revisit or recommend the park to others (Lee & Jan, 2019; Choi &Sirakaya, 2006). Initiatives like wildlife conservation, waste reduction, and biodiversity preservation enhance the visitor experience by fostering emotional connections that promote loyalty and advocacy (Boley & Green, 2016). In the case of Manas National Park (MNP), sustainability is particularly important due to its UNESCO World Heritage status, with conservation efforts for endangered species further enhancing visitors' sense of satisfaction and intention to return (Gössling et al., 2018). However, this relationship is complex. Some studies suggest that tourists primarily interested in leisure or adventure may prioritize convenience over sustainability, perceiving eco-friendly measures as secondary or even inconvenient (Martínez-Garcia & Raya, 2008). Additionally, strict sustainability practices, such as restricted access to sensitive areas, may reduce satisfaction for certain visitors, thereby weakening their Behavioural intentions (Weaver & Lawton, 2011). Furthermore, practical factors like affordability and service quality may take

precedence over sustainability in influencing Behavioural intentions (Dolnicar et al., 2015). Therefore, while sustainability can positively affect tourists' Behavioural intentions, its impact is multifaceted and varies according to visitor preferences. In conclusion, existing literature consistently supports the positive relationship between sustainability practices and tourists' Behavioural intentions. However, this relationship is influenced by various factors, including tourists' motivations, expectations, and perceived compromises between sustainability and convenience. While sustainability initiatives may enhance the emotional satisfaction of eco-conscious visitors, they might act as a deterrent for those more focused on leisure and recreation. This suggests a nuanced and complex dynamic between National Park Sustainability (NPSus) and National Park Behavioural Intentions (NPBI), leading to the formulation of the following hypothesis:

H1: There is a significant relationship between National Park Sustainability (NPSus) and National Park Behavioural Intentions (NPBI).

Relationship between NPSat and NPBI

The relationship between National Park Satisfaction (NPSat) and National Park Behavioural Intentions (NPBI) is widely acknowledged in tourism research. Numerous studies suggest that higher levels of visitor satisfaction, derived from well-maintained facilities, knowledgeable staff, or enjoyable activities, tend to result in favorableBehavioural outcomes, such as increased intentions to revisit or recommend the destination to others (Baker & Crompton, 2000; Chi & Qu, 2008). When tourists experience satisfaction, it often leads to an emotional connection with the park, enhancing perceptions of value, loyalty, and their desire to return or advocate for the destination.However, this relationship is not always linear. Alegre and Cladera (2006) argue that satisfaction, while important, does not automatically guarantee repeat visits. Factors such as novelty-seeking behavior or the availability of alternative travel options may moderate the effect of satisfaction on Behavioural intentions. Tourists may express satisfaction with their visit but still choose to explore other destinations for new experiences, reducing their likelihood of returning despite their positive experience (Kozak & Rimmington, 2000). In such cases, satisfaction may drive short-term outcomes, like recommending the park to others, without necessarily ensuring long-term Behavioural intentions, such as revisiting.On the other hand, offering a well-rounded visitor experience that combines natural beauty with modern conveniences can strengthen satisfaction and lead to stronger Behavioural intentions. For example, tourists who appreciate a combination of guided wildlife tours, clean facilities, and accessible information about the park's conservation efforts are more likely to leave satisfied and willing to revisit or recommend the park (Huang & Hsu, 2009). In the context of Manas National Park (MNP), delivering high-quality services alongside its conservation initiatives could ensure that satisfaction remains a key driver in shaping future behaviors, including repeat visitation and positive word-of-mouth.Thus, considering the nuanced nature of this relationship, the following hypothesis is proposed:

H2: There is a significant relationship between National Park Satisfaction (NPSat) and National Park Behavioural Intentions (NPBI).

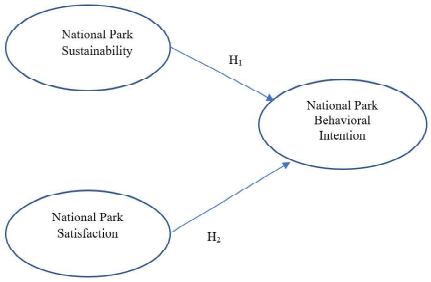


Figure 1: Model on National Park Sustainability and National Park Satisfaction on National Park Behavioural Intention

Objectives of the study

This study intends to achieve the following objectives:

(1) To investigate the influence of National Park Sustainability on National Park Behavioural Intentions.

(2) To examine the effect of National Park Satisfaction on National Park Behavioural Intentions.

Hypotheses of the Research Work

H1: There is a significant relationship between National Park Sustainability (NPSus) and National Park Behavioural Intentions (NPBI).

H2: There is a significant relationship between National Park Satisfaction (NPSat) and National Park Behavioural Intentions (NPBI).

Research Method

To empirically test the hypotheses formulated in this study, established multi-item scales from prior research were identified and appropriately modified to align with the specific context of this investigation. A comprehensive questionnaire comprising three key constructs was developed to assess tourists' National Park Behavioural Intentions (NPBI) in Manas National Park (MNP).

The construct of National Park Sustainability (NPSus) was operationalized into three dimensions, drawing on measurement items adapted from previous studies (Cottrell & Vaske, 2006; Faulkner & Tideswell, 1997; Fornara, Bonaiuto, & Bonnes, 2010; Ko & Stewart, 2002; Yale & Columbia, 2010) to fit the unique objectives of this study. The National Park Satisfaction (NPSat) construct was evaluated using four items derived from the literature (Choi & Chu, 2000; Gill et al., 2007; Oliver, 1997). The NPBI construct was measured using five items, based on scales developed by Chen & Tsai (2007), Gallarza & Saura (2006), Gokovali, Bahar, & Kozak (2007), and Zeithaml, Berry, & Parasuraman (1996). Each of these constructs was assessed using a 7-point Likert scale, where respondents rated their agreement with statements from strongly disagree (1) to strongly agree (7). The survey targeted national tourists to gauge their NPBI towards visiting MNP. Out of a sample size of 300 tourists who were invited to participate, 233 provided valid responses. The study employed a random sampling technique, and respondents were approached through online channels. The questionnaires were distributed and collected using Google Forms. Tourist contact information was sourced from the databases of various resort owners, homestay operators, and the administrative offices of Manas National Park, ensuring a representative sample.

Analysis & Results

Reliability, Validity and Measures of Sample Adequacy

A reliability analysis was performed on a sample of 233 valid cases, with no exclusions from the dataset. The internal consistency reliability of the scale was evaluated using the Cronbach's Alpha coefficient, which was calculated to be 0.738. This value indicates a moderate to good level of internal consistency among the items included in the scale. Additionally, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, used to evaluate the appropriateness of the data for factor analysis, resulted in a value of 0.852. This high KMO value suggests that the dataset is well-suited for factor analysis. Bartlett's Test of Sphericity, which examines whether the variables are significantly correlated, produced a significant result with an approximate chi-square value of 1262.071 and 190 degrees of freedom. This outcome indicates that the correlations among the variables are statistically significant ($p < 0.001$), further justifying the use of factor analysis for this dataset.

Descriptive Statistics for EFA Results for NPSus

Table 1: Descriptive statistics and EFA results for NPSus

National Park Sustainability Items	Mean	SD	Factor Loading
Presence of clean (unpolluted) air (NPSUS1)	2.35	1.782	.622
Presence of plenty areas covered in flora	2.33	1.739	.576
Presence of habitat for local wildlife	2.05	1.597	.640
Presence of key species	2.10	1.591	.642
Presence of natural features	2.28	1.818	.553
Low presence of noise pollution	2.13	1.754	.643
Presence of allocation of income to the local people	2.24	1.651	.597
Presence of tourist spending on local services and products	2.29	1.789	.627
Presences of conservation of traditional arts and crafts among local people	2.25	1.679	.592
Presence of education level among local people	2.45	1.684	.628
Presence of basic services for local people	2.21	1.590	.590

Source: Primary Data

The table provides descriptive statistics and results from the exploratory factor analysis (EFA) for various components influencing National Park Sustainability (NPSus). The analysis reveals that environmental conservation, community support, and cultural preservation are critical elements in ensuring the sustainability of national parks. Specifically, factors such as clean air, abundant flora, habitats for local wildlife, and the conservation of key species show moderate to strong positive correlations with the sustainability factor. Additionally, the reduction of noise pollution and the allocation of income to local communities are identified as vital components of sustainable park management. Furthermore, promoting tourist spending on local goods and services, preserving traditional arts and crafts within communities, and enhancing education and access to basic services for local residents are significant factors positively associated with park sustainability.

These findings highlight the complex and interconnected aspects of sustainability in national parks, emphasizing the need for comprehensive strategies that integrate environmental protection, community empowerment, and cultural heritage preservation to ensure the long-term sustainability of these natural resources.

Descriptive Statistics and EFA for NPSat

Table 2: Descriptive statistics and factor analysis results for NPSat

National Park Satisfaction Items	Mean	SD	Factor Loading
I am satisfied with my decision to visit this national park	4.13	1.654	.750
My choice to visit this national park was a wise one	2.15	1.829	.516
I am sure it was the right thing to visit this national park	2.58	2.112	.597
Visiting this national park is worthwhile	2.25	2.025	.607

Source: Primary Data

This set of items examines the satisfaction and perceived value visitors associate with their experience at a national park, as reflected in their responses. The mean scores indicate varying levels of satisfaction and confidence in the decision to visit, ranging from moderately positive to somewhat ambivalent. The highest mean score (4.13) reflects a generally high level of satisfaction with the decision to visit the park, accompanied by a relatively low standard deviation (1.654), which suggests a consistent level of satisfaction among visitors. In contrast, the lower mean scores for other items (ranging from 2.15 to 2.58) suggest more mixed feelings regarding the wisdom and

certainty of the decision to visit, with greater variability among respondents. Nonetheless, the positive factor loadings across all items (ranging from 0.516 to 0.750) indicate that these satisfaction measures collectively contribute significantly to the overall construct of national park satisfaction, underscoring their importance in evaluating visitor experiences and perceptions. Overall, while visitors generally express satisfaction with their decision to visit the national park, the nuances in their perceptions of the wisdom and certainty of that decision suggest areas for further investigation or potential improvement in enhancing visitor experiences.

Descriptive Statistics and Factor Analysis for NPBI

Table 3: Descriptive statistics and EFA for NPBI

National Park Behavioural Intention Items	Mean	SD	Factor Loading
I will visit this national park again in future	4.65	2.164	.597
I will say positive things about this national park	4.52	2.334	.607
I will choose this national park as my first choice compared to other national	4.63	2.110	.641
I will stay longer in the next visit to this national park	4.60	2.211	.729

Source: Primary Data

The items related to National Park Behavioural Intention evaluate visitors' future intentions and attitudes toward the national park they visited. The generally high mean scores across all items suggest that respondents have a favorable outlook on continued engagement with the park. Although there is some variability reflected in the standard deviations, the consistently high mean scores indicate a strong overall tendency toward ongoing interaction with the park. The factor loadings, which range from 0.421 to 0.729, indicate that these Behavioural intentions significantly contribute to the overall construct of future visitor engagement with the national park. Specifically, visitors exhibit a strong likelihood of revisiting the park, speaking positively about it, recommending it to others, prioritizing it over other national parks, and extending their stay during future visits. In conclusion, these results reflect a positive attitude towards future visitor behavior, suggesting the potential for sustained support and promotion of the national park.

Rotated Component Matrix

Table 4: Rotated Component Matrix

	Component		
	1	2	3
NPSus 3	.728		
NPSus 1	.698		
NPSus 4	.692		
NPSus 2	.674		
NpSus 8	.658		
NPSus 7	.575		
NPBI 4		.773	
NPBI 3		.756	
NPBI 5		.716	
NPBI 2		.710	
NPSAT 3			.817
NPSAT 2			.787
NPSAT 4			.597
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Source: Primary Data

The rotated component matrix displays the loadings of each variable on the extracted components after rotation. Three components are identified, labeled as Component 1, Component 2, and Component 3. Variables related to National Park Sustainability (NPSus) primarily load onto Component 1, with loadings ranging from 0.575 to 0.728. This suggests that Component 1 may represent aspects related to the sustainability of national parks. National Park Behavioural Intentions (NPBI) variables load heavily onto Component 2, with loadings ranging from 0.710 to 0.773. This indicates that Component 2 may reflect factors associated with visitors' intentions and behaviors towards national parks. National Park Satisfaction (NPSat) variables load predominantly onto Component 3, with loadings ranging from 0.597 to 0.817. This suggests that Component 3 may capture aspects related to visitors' satisfaction with their park experiences.

Communalities

Table 5: Communalities

	Initial	Extraction
NPSus 1	1.000	.521
NPSus 2	1.000	.471
NPSus 3	1.000	.542
NPSus 4	1.000	.528
NPSus 7	1.000	.422
NPSus 8	1.000	.473
NPSat 2	1.000	.643
NPSat 3	1.000	.717
NPSat 4	1.000	.486
NPBI 2	1.000	.509
NPBI 3	1.000	.577
NPBI 4	1.000	.617
NPBI 5	1.000	.541
Extraction Method: Principal Component Analysis.		

Source: Primary Data

The communalities represent the proportion of variance in each variable that is accounted for by the extracted components. For most variables, the communalities after extraction range from 0.422 to 0.717, indicating that a significant portion of the variance in these variables is explained by the extracted components. Higher communalities suggest that the variables are well-represented by the extracted components, indicating a good fit of the PCA model to the data. Overall, the rotated component matrix and communalities provide insights into the underlying structure of the variables and their relationships within the dataset, facilitating a better understanding of the dimensions of national park sustainability, Behavioural intentions, and satisfaction.

Interpretation

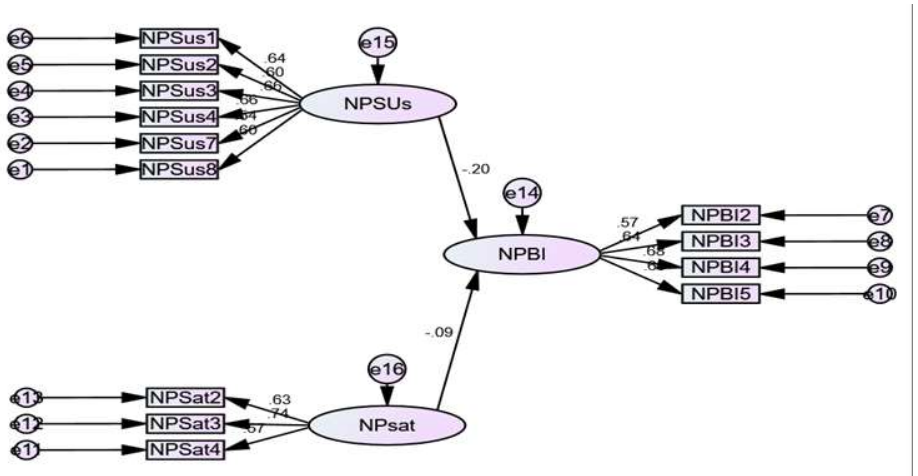
Table 6: Model Interpretation

	Components		
	Sustainability	**Satisfaction**	**Behavioural Intention**
NPSus 3	.728		
NPSus 1	.698		
NPSus 4	.692		
NPSus 2	.674		
NpSus 8	.658		
NPSus 7	.575		
NPBI 4		.773	
NPBI 3		.756	
NPBI 5		.716	
NPBI 2		.710	
NPSAT 3			.817
NPSAT 2			.787
NPSAT 4			.597

Source: Primary Data

The factor analysis results suggest that three distinct components, labeled Sustainability, Satisfaction, and Behavioural Intention, emerge from the examined variables. Within the Sustainability component, variables NPSus 3, NPSus 1, NPSus 4, NPSus 2, NpSus 8, and NPSus 7 are highly correlated, indicating that they collectively represent aspects related to sustainability. Satisfaction, represented by variables NPSAT 3, NPSAT 2, and NPSAT 4, demonstrates strong interrelatedness among these measures, reflecting a coherent construct capturing customer satisfaction. Additionally, the Behavioural Intention component, represented by variables NPBI 4, NPBI 3, NPBI 5, and NPBI 2, exhibits high correlations, indicating a cohesive representation of customers' Behavioural intentions towards the brand or product. The factor loadings, particularly those nearing or exceeding 0.7, indicate the strength of each variable's contribution to its respective component. This analysis provides insights into the underlying structure of the examined variables, offering a framework for understanding the interplay between sustainability, satisfaction, and Behavioural intention within the context of customer perceptions and attitudes.

SEM Model and Interpretations



The Chi-square statistic reached its minimum value, suggesting that the model fits the data well (150.334 with 63 degrees of freedom). The associated probability level for this Chi-square value is less than 0.001 ($p < .000$), indicating that the model's fit to the data is statistically significant. These results collectively demonstrate that the proposed structural model aligns well with the observed data, with the minimal Chi-square value indicating that the model effectively accounts for the relationships among the variables.

Figure 2: SEM Model

Table 7: Correlations and Testing of Hypothesis

			Estimate	S.E.	C.R.	P	Label
NPBI	<---	NPSUs	-.254	.113	-2.242	.025	par_11
NPBI	<---	NPSat	-.101	.103	-.981	.327	par_12
Q8	<---	NPSUs	1.000				
Q7	<---	NPSUs	.844	.132	6.387	***	par_1
Q4	<---	NPSUs	.982	.135	7.262	***	par_2
Q3	<---	NPSUs	.986	.136	7.265	***	par_3
Q2	<---	NPSUs	.981	.143	6.851	***	par_4
Q1	<---	NPSUs	1.069	.150	7.136	***	par_5
ID2	<---	NPBI	1.000				
ID3	<---	NPBI	1.136	.177	6.431	***	par_6
ID4	<---	NPBI	1.070	.163	6.575	***	par_7
ID5	<---	NPBI	1.069	.165	6.466	***	par_8
CD3	<---	NPsat	1.272	.225	5.642	***	par_9
CD2	<---	NPsat	.945	.159	5.955	***	par_10
CD4	<---	NPsat	1.000				

Source: Primary Data

The structural equation modeling (SEM) analysis uncovers several significant relationships among the variables of National Park Sustainability (NPSus), National Park Behavioural Intention (NPBI), and National Park Satisfaction (NPSat). The analysis indicates that NPSus negatively influences NPBI (Estimate = -0.254, $p = 0.025$), suggesting that as perceived sustainability increases, Behavioural intentions toward the national park decrease. Similarly, NPSat shows a negative, though non-significant, influence on NPBI ($p = 0.327$);indicating that satisfaction with the national park does not have a meaningful influence on visitors' Behavioural intentions in this model. Additionally, responses to survey questions Q7, Q4, Q3, Q2, and Q1 positively contribute to NPSus, implying that these questions are associated with higher levels of satisfaction regarding national park sustainability. On the other hand, variables ID3, ID4, and ID5 positively and significantly influence NPBI, indicating that certain unidentified factors positively affect Behavioural intentions toward national parks. Furthermore, variables CD3 and CD2 positively impact NPSat, suggesting that certain unspecified conditions enhance national park satisfaction.The regression coefficient for the relationship between NPSus and NPBI is -0.254, indicating that as NPSus increases, NPBI tends to decrease. However, this relationship is not statistically significant at the conventional á = 0.05 level, as evidenced by a t-value of -2.242 and a p-value of 0.025. Similarly, the regression coefficient for the relationship between NPSat and NPBI is -0.101, suggesting that as NPSat increases, NPBI tends to decrease. Yet, this

relationship is also not statistically significant, as indicated by a t-value of -0.981 and a p-value of 0.327.In summary, the analysis suggests that neither NPSus nor NPSat has a significant relationship with NPBI based on the provided regression coefficients, t-values, and p-values.

Conclusion and Implications

Relationship between National Park Sustainability (NPSus) and National Park Behavioural Intentions (NPBI)

The study's findings demonstrate a statistically significant relationship between National Park Sustainability (NPSus) and National Park Behavioural Intentions (NPBI), consistent with previous research that underscores the influence of sustainability on visitor behavior. The strong factor loadings of variables such as clean air, wildlife protection, and the preservation of local culture as critical components of sustainability emphasize the vital role that environmental and cultural conservation play in shaping tourists' Behavioural intentions. These results align with the work of Boley & Green (2016), who suggest that sustainability initiatives, when effectively communicated to tourists, can enhance their emotional attachment to a destination, fostering loyalty and encouraging repeat visits. Furthermore, the study indicates that tourists are more inclined to revisit and recommend Manas National Park (MNP) when they perceive the park as actively engaging in sustainable practices. This finding reflects a broader trend in eco-tourism, where visitors increasingly favor destinations that demonstrate a strong commitment to environmental preservation. The outcome is consistent with previous empirical research, such as the studies by Han et al. (2017), which found that sustainability initiatives positively influence Behavioural intentions across various eco-tourism destinations. The significant correlation between MNP's sustainability efforts and positive Behavioural intentions reinforces the idea that such practices are essential for ensuring long-term tourist engagement and advocacy for the park.

Influence of National Park Satisfaction (NPSat) on National Park Behavioural Intentions (NPBI)

While the relationship between National Park Satisfaction (NPSat) and National Park Behavioural Intentions (NPBI) was not found to be statistically significant in this study, this result merits deeper investigation. Several plausible explanations could account for this outcome. For instance, although visitors may report moderate to high satisfaction levels, the lack of a strong link to Behavioural intentions could suggest that satisfaction alone is insufficient to drive revisits or recommendations. This contrasts with earlier findings by Yoon & Uysal (2005), who identified satisfaction as a critical predictor of future behavior in tourism settings.One potential reason for this discrepancy could be that satisfaction, while necessary, is not the primary driver of repeat visitation in the context of MNP. Instead, sustainability factors may hold more weight in influencing tourist behavior, as indicated by the stronger association between NPSus and NPBI. Additionally, satisfaction might be influenced by short-term factors such as weather conditions, wildlife sightings, or the quality of specific services, which may not leave a lasting impression on tourists compared to the broader, long-term impact of sustainability. These findings suggest that management at MNP should prioritize sustainability efforts over service-related factors if the goal is to enhance repeat visitation and positive word-of-mouth.

The Role of Sustainability as a Primary Driver of Behavioural Intentions

The structural equation modeling results demonstrate that sustainability is the most significant predictor of Behavioural intentions, overshadowing satisfaction. This finding underscores the importance of implementing and promoting sustainability practices within MNP. In contrast to satisfaction, which can be subjective and based on momentary experiences, sustainability appears to resonate more deeply with tourists, particularly those from developed countries who are likely more environmentally conscious. This aligns with the growing body of

literature suggesting that tourists, especially eco-tourists, are increasingly motivated by a destination's commitment to environmental stewardship (Choi &Sirakaya, 2006). As global awareness of climate change and environmental degradation rises, destinations that can demonstrate their contribution to conservation are better positioned to attract and retain environmentally-conscious visitors. For MNP, this implies that further investment in sustainability initiatives such as reducing carbon footprints, preserving biodiversity, and involving local communities in conservation efforts could enhance its appeal and encourage greater tourist advocacy.

Implications for Management and Policy

The results of this study provide clear managerial implications. First, the strong relationship between NPSus and NPBI suggests that MNP's management should place greater emphasis on promoting its sustainability practices to visitors. This could be achieved through enhanced marketing campaigns, educational programs, and visible sustainability projects within the park. Visitors should be made aware of how their experiences contribute to broader conservation efforts, as this can strengthen their emotional connection to the park and encourage future visits. Secondly, while satisfaction did not emerge as a significant predictor of Behavioural intentions, it is still an essential component of the overall visitor experience. Management should not disregard visitor satisfaction entirely, but rather integrate it with sustainability practices. Ensuring that tourists have a pleasant experience while simultaneously engaging in eco-friendly practices can foster a more holistic and memorable visit, leading to longer-term advocacy for the park.

Scope for Future Research

The study examined the influence of National Park Sustainability (NPSus) on National Park Satisfaction (NPSat) and National Park Behavioural Intention (NPBI) with a focus on Manas National Park, Assam. The findings revealed that NPSus significantly affects both NPSat and NPBI. A significant direct relationship was observed between NPSat and NPBI, suggesting that higher satisfaction levels lead to stronger intentions to engage in positive behaviors towards the national park. Manas National Park one of the important National Park in Assam which accumulates many tourists from all over the globe. The study particularly emphasizes to increase the in-depth understanding of the concept of sustainability and its importance for any national park. It throws a light on the methods of factors influencing on the choice of a visiting Manas National Park by tourist and their respective factors of feedback about satisfaction and Behavioural intentions for visiting Manas National Park. The main results of the study indicate that sustainability plays an important role in the choice of visiting National Park. The tourist seems to be aware of which sustainability attributes like flora and fauna, clean air, habitat for wildlife, key species, income generation, spending on local services and products etc. The other factor which needs to be looked into by the park management authority is the satisfaction where the tourist conveyed their reason about decision to visit the park, worthy of visiting etc., the analysis has shown that the customers were satisfied and their decision of visiting the national park was a wise one. Behavioural Intention also play an important role in determining their future intentions to visit the park. Attributes like recommending the park to others, saying positive things about the park, choosing the national park again and making the park as the first choice had positive impacts on the respondents. The descriptive statistics and factor analysis conducted for each construct provided valuable insights into the perceptions and attitudes of visitors. The assessment of NPSus factors indicated moderate levels of sustainability across various criteria, with areas for improvement identified, particularly regarding noise pollution, income allocation to local communities, and conservation efforts. Similarly, the analysis of NPSat items revealed varying degrees of satisfaction among visitors, with some

aspects scoring higher than others. While visitors generally expressed satisfaction with their decision to visit the national park, there were areas where satisfaction could be enhanced, such as perceived worthiness of the visit. Furthermore, the examination of NPBI items highlighted strong intentions among visitors to engage in positive behaviors towards the national park, including future visits, recommendations to others, and extended stays. These findings highlight the importance of fostering sustainable practices within national parks to ensure visitor satisfaction and promote positive Behavioural intentions. In conclusion, the study contributes to understanding the complex interplay between sustainability, satisfaction, and Behavioural intentions within the context of national park tourism. It emphasizes the need for park management authorities to prioritize sustainability initiatives, enhance visitor satisfaction through improved services and experiences, and leverage satisfied visitors as advocates for promoting the park's conservation and sustainable development goals.

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