Linking the intrinsic and environmental constraints with PwD tourists' behavioral intentions toward a travel destination: mediating role of learned helplessness

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Abstract

Purpose – *The present study examines the antecedents of learned helplessness, i.e. intrinsic and environmental constraints and consequences, i.e. intention to travel and expectation in the context of people with disability (PwD) tourism context by applying the "Theory of Learned Helplessness".*

Design/methodology/approach – *The survey method was used to gather data from 209 physically disabled people who had visited/traveled to any tourist destination in the past twelve months. Structural equation modeling technique was used to analyze data.*

Findings – *The findings reveal that intrinsic and environmental constraints positively influence learned helplessness. Consequently, learned helplessness negatively effects intention to travel and positively affects expectation of PWD tourist' toward a travel destination. Furthermore, learned helplessness contributed as a mediator between intrinsic constraints and intention to travel toward a tourist destination.*

Originality/value – *Even though the body of literature on associations studied pertaining the conceptual lens of learned helplessness is widely recognized, there is dearth of literature investigating the connections between travel constraints, learned helplessness, PwDs intention and their expectation in travel destination context.*

Keywords *Travel constraints, Learned helplessness, PwD, Intention to travel, Tourism, SEM*

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1. Introduction

According to the WHO report (2011), people with disabilities (PwD) experience barriers in accessing services, including health, education, employment and transport as well as information. As per World Health Survey, around 785 million (15.6%) persons living with a disability (WHO World Report on Disability, 2011). Currently, the tourism market with PwD is considered an emerging industry all over the world. Keeping in view the importance of this tourist segment, the United Nations World Tourism Organization (UNWTO, 2016) recommended the "Accessible Tourism for All" campaign that implies the participation of PwD in tourism as a potential segment for the growth of the tourism sector (UNWTO, 2016). However, it is also emphasized that support service availability, accessibility and training of staff and employees will play a major role in motivating the PwD to express intention to travel by overcoming the personal and environmental constraints.

In addition to these, a large section of available literature on PwD tourism adopted a homogenous approach for PwD tourists without taking into account their specific needs and preferences. One of the pioneering studies in this area was Smith's (1987) study on tourism and PwDs. Lyu (2016) studied how Korean PwD tourists with mobility disabilities make decisions regarding the selection

of accessible travel products depending on product attributes. McKercher and Darcy (2018) discussed the nature and effects of barriers faced by PwD during travel with the help of a hierarchy model. Michopoulou and Buhalis (2013) contribute to theory by enhancing the existing knowledge regarding the requirements of the disabled users of an IS within the particular context of the tourism industry. Lee *et al.* (2012) studied PwDs using the theoretical lens of learned helplessness, and the relationships between this theory, travel constraints and intention to travel were discussed.

The relationship between PwD's travel constraints and travel intention is conditioned by intrinsic constraints, which is supported by the theory of learned helplessness (Seligman, 1975). Despite the importance of learned helplessness as an influencing factor in tourism and disability research, scant studies have been undertaken about PWD tourists' travel intention and travel expectation (Darcy *et al.*, 2017; Pagán, 2015) and how learned helplessness mediates between intrinsic constraints and travel intention (Lee *et al.*, 2012; Wang and Cole, 2014).

Keeping in view the importance of this subject, the present study aims to explore the factors that influence learned helplessness among the PwD tourists' that result in adoption intention and expectation from the service provider in the North East region of India. To achieve the research goal, a conceptual framework has been developed by presenting the relationships among the influential factors, validate them scientifically and presenting results in a systematic manner that may further encourage academicians, policy planners, government and non-government bodies to devise measures and plan future courses of actions for the betterment of the PwD tourists through the removal of the travel constraints and creating awareness thereby about this critical yet neglected issue about PwD in India.

2. Literature review and development of hypotheses

McKerchera and Darcy (2018) have proposed a four-tiered hierarchy to understand better the nature and effects of barriers, constraints and obstacles to travel faced by PWD and recognized the nature and range of barriers that affect disabled people participation in tourism. In order to understand the conditions of learned helplessness, McKercher and Darcy (2018) have adopted a social model of disability whereby the types of constraints identified are imposed on those with impairments by society than a function of a medical condition (Barnes *et al.*, 2010). The researchers have further identified five features of intrinsic constraints, i.e. ignorance, attitude, the trustworthiness of information, issues related to the person (McKercher and Darcy, 2018). Pagan (2021) has viewed that the loneliness in PwDs can be lessened by their participation in family and friend get-togethers, social, sport and cultural events that have a positive contribution to raising their confidence level.

In India, PwDs face barriers such as the lack of services, lack of consultation, low involvement, poor coordination of services, inadequate staffing, and weak staff competencies of the tourism service providers can affect the quality, accessibility and adequacy of services for persons with disabilities. Many PwDs are excluded from decision-making in matters directly affecting their lives, for example, where people with disabilities lack choice and control over how support is provided to them in their homes. Furthermore, the lack of rigorous and comparable data on disability and evidence on programs also impede understanding and action related to PwD. Understanding the numbers of people with disabilities and their circumstances can improve efforts to remove disabling barriers and provide services to allow people with disabilities to participate. The disabling barriers contribute to the disadvantages experienced by PwDs.

Seligman's (1975) theory on "learned helplessness is a foundational theory to discuss PwD tourists" travel-related constraints and how PwD makes futile attempts to control their situation and caused by negative outcomes such as not participating in travel-related activities emerge (Holmstrom and Kim, 2015). This study will relate the theory of learned helplessness to intrinsic and environmental constraints faced by PwD tourists and the possible outcomes in the context of India. This study can be an extension of previous studies on PwD tourists and their behavior through the prism of learned helplessness theory. Based on extensive review of literature the types of relations found in learned helplessness related studies are mentioned in Table 1.

Table 1 Types of relations found in learned helplessness related studies

Construct Relationships in literature / *Authors*	*Intrinsic constraint → Learned helplessness (H1)*	*Environmental constraint → Learned helplessness (H2)*	*Learned helplessness → Intention to travel (H3)*	*Learned helplessness → Expectation (H4)*	*Environmental constraint→ Learned helplessness→ Expectation (H5)*
Lee *et al.* (2012)	√	√	√	×	√
Wen *et al.* (2020)	√	×	×	×	×
Çİzel and Çİzel (2014)	×	×	√	×	×
Dweck (1975)	×	×	×	×	√

2.1 Relationship between perceived levels of intrinsic constraints by PwD tourists and their learned helplessness related to travel

A PwD with intrinsic feels helpless and further shows less intention for travel participation (Lee *et al.*, 2012). Fleischer and Seiler (2002) and Nyaupane *et al.* (2004) discussed the reasons for PwD not participating in tourism activities. McKercher *et al.* (2003) pointed out that undifferentiated approach of tour operators for the needs PwD. Due to fewer opportunities to engage in independent tourism behaviors, they can know inevitable hindrances that lead to a decline in the pleasure of their entire journey. Consequently, some might discard their want to journey, thus learning helplessness resulting from an individual unenthusiastic incident, while others can be extra careful with future commitment with travel but still follow the wish for tour. Thus, perceived level of intrinsic constraint disable tourists may influence their learned helplessness and we posit that:

H1. Perceived levels of intrinsic constraints by PWD tourists positively influence their learned helplessness related to travel.

2.2 Relationship between perceived levels of environmental constraints by PwD tourists and their helplessness related to travel

Environmental constraints are external travel inhibiting factors for PwD. It comprises attitudinal, ecological, architectural and transportation constraints (Lee *et al.*, 2012). Moreover, negative social attitudes toward PwD, no proper information about tourist destinations and facilities to assist PwD, absence of safe environments, inconvenient transportation facilities, lack of assistive staff are considered as major external environmental factors that affect PwD while planning for travel (Yau *et al.*, 2004). Shaw and Coles (2004) further have added that lack of medical and nurses, unfriendly people, money are also some travel inhibiting factors for PwD. Poria *et al.* (2010) have found that attitudes of staff toward PwD and limited interaction opportunities with other people are barriers for PwD to have tourism experience. These environmental constraints influence learned helplessness of PwD that further affect their travel intention and expectation.

In this study, the researchers have investigated how perceived levels of environmental constraints of disabling tourists positively influence their helplessness related to travel. Thus, we posit that:

H2. Perceived levels of environmental constraints by PWD tourists positively influence their helplessness related to travel.

2.3 Relationship between perceived levels of helplessness and their intention to travel

According to the theory of learned helplessness, "if a person is prevented from behaving freely, they may then become more determined to behave in the way in which they want" (Seligman, 1975). If a person is continually avoided as of doing so, they start perceiving that they cannot behave in their desired ways that result in loss of confidence. In the tourism context, PwD learns to behave

helplessly to avoid unpleasant consequences although the opportunity is restored to assist help them that further create negative travel intention. Thus, opportunity to facilitate better facilities improved tourist' intentions to re-buy the travel arrangements (Sarmah *et al.*, 2017b). On the other hand, satisfaction of tourists in such travel arrangement describes their revisit intention (Kamboj and Joshi, 2021). McKercher and Darcy (2018) have established that constraints are forced on those with harms by the social order, more so than "disability" being a function of a health situation (Barnes *et al.*, 2010). An environment-related societal approaches (e.g., physical, financial, artistic, etc.) are unconstructive for PwDs as they are suppose to bear unreceptive societal mind-sets that clearly and secretly limit their contribution and form a negative opinion, which further can affect their travel intention (Barnes *et al.*, 2010), as compare to individuals who come about to include a disability.

H3. Perceived levels of helplessness related to PwD tourists negatively influence their intention to travel.

2.4 Relationship between perceived levels of helplessness and their expectation from the tourism service provider

Learned helplessness induces PwD tourists to display passive and withdrawing behavior (Seligman, 1975; Bowen and Johnston, 1999). PwD tourists' learned helplessness makes them more dependable on the service staff during the service delivery process to evade failure situations (Boye and Slora, 1993; Wong and Dioko, 2013). PwD tourists with learned helplessness have high expectations from the service provider to reduce their intrinsic and environmental constraints. Factors such as empathy and assurance from the service provider play a critical role here. Disable people feel safe (Kakouris and Meliou, 2011) due to the assurance and empathy shown to them by the service providers. Thus, we posit:

H4. Perceived levels of helplessness related to PwD tourists positively influence their expectations from the tourism service provider.

2.5 Learned helplessness mediates between intrinsic constraint and intention to travel

According to the theory of learned helplessness, "it is a psychological state in which a person has learned to believe that he/she has no control over a situation and that whatever he/she does is futile" (Seligman, 1975). This results in making PwD believe that due to their intrinsic constraints they may not follow their intention to travel. Learned helplessness mediates between intrinsic constraint and intention to travel (Lee *et al.*, 2012; Seligman, 1975). PwDs have limited exposure to participate in tourism activities and due to unavoidable problems cannot experience it fully. The negative experience results in learned helplessness that may further result in abandoning travel plans, although the desire for travel is still inside.

H5. Learned helplessness mediates between intrinsic constraint and intention to travel.

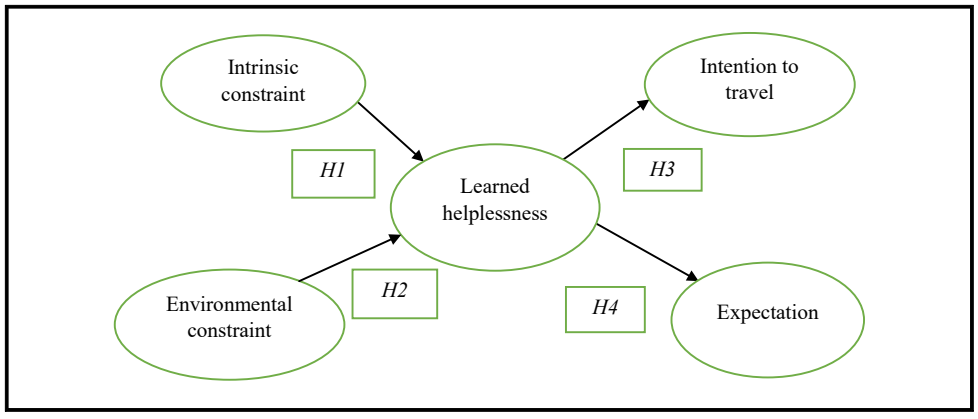
Thus based on arguments made in above-mentioned studies in literature, in this study a conceptual model is proposed (Figure 1). This figure clearly explains about antecedents (intrinsic and environmental constraints) and consequences of learned helplessness (intention to travel and expectation) in the context of PwD tourism context.

3. Methodology

3.1 Sample

Convenience sampling along with snowball sampling was used to collect data and participants were asked to voluntarily take part in the survey. This convenience sampling is the majorly used method in quantitative studies (Kamboj and Gupta, 2020; Khan *et al.*, 2019; Sarmah *et al.*, 2017a).

Figure1 Conceptual model



Snowball sampling is a popular method and widely used wherever a population is rare and unknown and it is hard to decide subjects to accumulate them as samples for study.

The survey was initially started with the tourists/travelers of Northeast popular destinations in India, who voluntarily participated in the survey in receipt of a cash incentive of INR100 (equivalent to US$1.34 approximately). Thus, using the convenience sampling method, the questionnaire was first offered to these respondents, and they further assist the researcher based on snowball sampling to get it filled by physically disabled persons in their contacts who have traveled at any tourist place in the last eighteen months before conduct survey.

The severity of a PwD was identified by using two questions in the questionnaire: "Do you have a health problem that limits you in everyday life? (Yes, severely/Yes, somewhat)". Those persons who answer "Yes" are defined as people with disabilities. Persons responding "Yes, severely" or "Yes, somewhat" are also questioned: "Have you had this health problem for more than half a year? (Yes/No)". Persons responding "No" are again considered as people without disabilities, whereas those answering "Yes" are defined as people with disabilities (but with different degrees of severity). According to Gannon (2005), researchers can differentiate two groups of PwDs by following methods: 1) Respondents reporting a health problem for more than half a year that severely limits their normal daily activities; and 2) respondents who report such a condition but state that it limits them but somewhat (i.e. moderately). As a result, we are considering two possible groups: (1) PwDs, who are moderately limited and (2) PwDs with disabilities, who are severely limited.

In totality 300 questionnaires were circulated for the data collection purpose and 215 questionnaires were returned back. After making adjustments regarding the questionnaire with incomplete responses or missing values, 209 responses were finally considered with a response rate of 70%. The demographic profile of respondents is mentioned in Table 2.

Further, before making use of gathered data for final analysis, "*common method variance*" i.e. CMV was tested. For the same, "*Harman's single factor test*" was run (Podsakoff and Organ, 1986) using SPSS-based EFA based on "*Principal Component Method*". The findings of EFA did not produce a single factor that may explicate the highest portion of variance, and thus facilitating that CMV was not a main problem in context of current research.

3.2 Measures and operationalized the constructs

In survey instrument, data were obtained using "*five-point Likert type scale*" with 1 = "*strongly disagree*" to 5 = "*strongly agree*". A total of five constructs are used in this paper. All items of first construct intrinsic constraints were adapted from Lee *et al.* (2012) study. Similarly, the items for environment constraint were borrowed from Lee *et al.* (2012) study. Another key measure of this

Table 2 Demographic details of the respondents

Variables	*Categories*	N *(209)*	*%*
Gender	Male	147	70
	Female	62	30
Age	Less than 20	17	8.13
	20–29	51	24.4
	30–39	73	34.9
	40–49	38	18.2
	50–59	22	10.5
	More than 60	08	3.8
Education	10th Standard	23	11
	10+2	35	16.74
	Graduate	84	40.1
	Post Graduate and above	67	32
Disability type	Mobility-impaired	62	29.6
	Cognitive	56	26.7
	Sensory	91	43.5
Numbers of overnight travel	1–5 times	89	42.5
	6–10 times	58	27.7
	11–20 times	41	19.6
	More than 21 times	21	10.0
Travel companion	Alone	6	2.87
	Family members/Relatives/Friends	74	35.40
	Disability groups	25	11.96
	Religious groups	24	11.48
	Volunteers	47	22.48
	Other	33	15.79

study learned helplessness was measured based on items adapted from Ying *et al.* (2021). Further, items for another construct, i.e. Intention to travel were borrowed from Ying *et al.* (2021) study. All items for expectation construct were adapted from Ryan and Cliff's (1997), Dean (2004), Wong and Dioko (2013) study. All the borrowed scales with their measures are reported in Appendix.

4. Data analysis and results

4.1 Confirmatory factor analysis

In this paper, structural equation modeling (SEM) based on a two-step process was used to validate the research model and check the proposed hypotheses. In the beginning, confirmatory factor analysis (CFA) was run to ensure the measurement model and establish the various indices of the goodness of fit. Apart from this, reliability and validity of constructs were also confirmed based on this measurement model. Then developed hypotheses of this study were tested to set up SEM. During the CFA, all fitness indices was bring into being the standardized range (Hair *et al.*, 2010). The calculated values of these indices highlighted GFI = 0.887, AGFI = 0.851, CFI = 0.960, CMIN/DF = 1.759 and RMSEA = 0.060 (Table 3).

4.2 Reliability and convergent validity test

After the establishment of the measurement model, the key constructs were tested for reliability (α, CR) and validity (convergent, discriminant). For the reliability, the value of "*Cronbach alpha*" (α) was checked using SPSS software and found satisfactory (Table 3). Further, to ensure the convergent validity both composite reliabilities, i.e. CR and "*average variance extracted*" (AVE) were checked (Anderson and Gerbing, 1988).

In the measurement model, the compounded values of CR for all key construct were over 0.70 (Fornell and Larcker, 1981), with maximum value for intrinsic constraint and lowest value for

Table 3 Test results of internal reliability and validity

Construct	*Measurement item*	*Factor loading*	*Cronbach alpha(α)*	*(CR)*	*(AVE)*
Intrinsic constraint	*IC1*	0.865	0.949	0.949	0.788
	IC2	0.861			
	IC3	0.870			
	IC4	0.916			
	IC5	0.924			
Environmental constraint	*EC*1	0.699	0.813	0.815	0.525
	EC2	0.796			
	EC3	0.703			
	EC4	0.694			
Learned helplessness	*LH1*	0.841	0.932	0.934	0.779
	LH2	0.923			
	LH3	0.961			
	LH4	0.797			
Intention to travel	*ITT1*	0.838	0.824	0.826	0.614
	ITT2	0.757			
	ITT3	0.753			
Expectation	*EXP1*	0.846	0.882	0.884	0.658
	EXP2	0.908			
	EXP3	0.718			
	EXP4	0.759			
CMIN/DF		1.759			
GFI		0.887			
AGFI		0.851			
CFI		0.960			
RMSEA		0.060			

Note(s): All the factor loadings are at $p < 0.001$

environmental constraint. In addition, all the values of AVE were also found satisfactory, i.e. above 0.50 as suggested by Fornell and Larcker (1981). The greatest value of AVE was for intrinsic constraint while the smallest value was witnessed for environmental constraint.

4.3 Discriminant validity test

After convergent validity test, another test was performed to check discriminant validity. For the same, we followed the Fornell and Larcker (1981) and Kline (2005) and in line with these two studies, AVE square root values were compared with inter-construct correlations (Table 4). Further, MSV values were compared with both ASV and AVE (Table 4). In context of CFA model, AVE was found over both ASV and MSV for this study. Additionally, correlations values were found below the AVE square root values, and thus support to establish discriminant validity. Besides, the values of inter-construct correlation were also found below 0.85 (Kline, 2005). Accordingly, all rules for discriminant validity were fully met in context of this research.

Table 4 Correlation among constructs

Constructs	*ASV*	*MSV*	*1*	*2*	*3*	*4*	*5*
1. IC	0.125	0.142	*0.888*				
2. EC	0.092	0.137	0.369	*0.724*			
3. LH	0.198	0.291	0.376	0.272	*0.883*		
4. ITT	0.241	0.397	−0.377	−0.370	−0.536	*0.784*	
5. EXP	0.197	0.394	0.282	0.149	0.539	−0.630	*0.811*

Note(s): [1] The diagonal line of the correlation matrix represents the square root of AVE
[2] off-diagonal elements are the correlations among constructs

4.4 Structural model analysis

After CFA was run, structural model was formed using AMOS-SEM based on relationship proposed in conceptual model. All the hypotheses were checked with the help of this model for their support or rejection. Similar to CFA model, for this SEM all fitness indices were compounded and found satisfactory as follows (Table 5); CMIN/DF = 2.141, GFI = 0.857, TLI = 0.928, CFI = 0.938 and RMSEA = 0.062 (Hair *et al.*, 2010).

4.5 Testing of hypotheses

As mentioned earlier, the hypothesized relationships proposed among key constructs in this study were tested through AMOS-SEM. For the same, path diagram was created and standardized regression weights were checked (Table 5 and Figure 2). The driving factors of learned helplessness, namely intrinsic constraint ($\beta = 0.341$, $p \leq 0.001$) and environmental constraint ($\beta = 0.164$, $p \leq 0.05$) were found to influence learned helplessness significantly. Accordingly, hypotheses H1 and H2 have been supported. As a result, it has been proved that intrinsic constraint and environmental constraint directly affect learned helplessness.

In addition, regarding the outcome variables of learned helplessness, both intentions to travel ($\beta = -0.548$, $p \leq 0.001$) and expectation ($\beta = 0.543$, $p \leq 0.001$) were found to be considerable resulting outcomes of learned helplessness. Thus, H3 and H4 were also supported.

4.6 Results of mediating effect

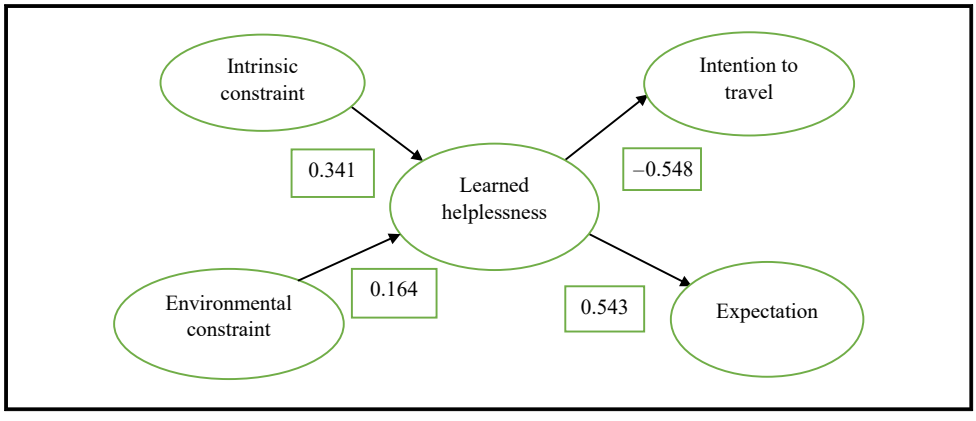
The role of learned helplessness as a mediator was tested between intrinsic constraints and intention to travel. For the same, the analysis was done with the help of AMOS using bootstrap

Table 5 Testing of hypotheses

Explanatory Path	*Standardized coefficient (β)*	*SE*	*Critical ratio*	p *value*	*Interpretation*
H1: Intrinsic constraint → Learned Helplessness	0.341	0.050	4.822	**	Significant
H2: Environmental constraint → Learned Helplessness	0.164	0.066	2.201	0.028*	Significant
H3: Learned Helplessness → Intention to travel	−0.548	0.071	−7.232	**	Significant
H4: Learned Helplessness → Expectation	0.543	0.077	7.507	**	Significant

Note(s): *$p \leq 0.05$, **$p \leq 0.001$CMIN/DF = 2.141, GFI = 0.857, CFI = 0.938, TLI = 0.928, RMSEA = 0.062

Figure 2 Validated model



method. This bootstrap method is based on SEM and provides better results as compare to the traditional approach of mediation analysis proposed by Baron and Kenny's (1986). Thus, using this bootstrap method, a new mediation model was created using AMOS-SEM and checked with the bootstrap process to generate 1,000 estimates of the SEM-based mediation model path coefficients. Thus, both direct and indirect effects were computed via output from these 1,000 estimates of the SEM-based mediation model and its path coefficients.

The results of mediation analysis (Table 6) depicted that learned helplessness partially mediates between the intrinsic constraints and PwDs intention to travel, thus partially support the H5. Both, direct effect and indirect effect were found significant (Table 6). The description about the results of mediation analysis is provided in Table 6. Similar to CFA and SEM model created for proposed hypotheses testing, in this mediation model also model fitness indexes are calculated and were found as follows; GFI = 0.909, AGFI = 0.861, CFI = 0.966 and RMSEA = 0.062.

5. Discussion and implications

The result of the hypothesis testing of the present study is as follows: Intrinsic constraint positively affect Learned Helplessness (H1), Environmental constraint positively affect learned helplessness (H2), Learned helplessness negatively influence Intention to travel (H3), Learned Helplessness positively influences Expectation (H4) and Learned helplessness mediates between intrinsic constraint and intention to travel (H5).

The present study revealed that intrinsic constraints such as lack of confidence and loss of control faced by PwD affect their learned helplessness (Wen *et al.*, 2020; Lee *et al.*, 2012), and thus support H1. Environmental constraints caused due to issues such as no proper governmental tourism policies and practices regarding PwD further affect their learned helplessness (H2). The study further analyzed that learned helplessness negatively influences intention to travel (H3) as the PwD sometimes loses the interest to engage further in tourism activities. Learned helplessness positively influences expectation (H4) due to a few reasons such as increased participation in tourism planning and practices through social media, digital platforms and apps by the tourism destination package developers. Finally, learned helplessness mediates between intrinsic constraint and intention to travel (H5) which is an extension of the literature work by Lee *et al.* (2012).

The findings revealed that people with disabilities (PwD) represent a significant segment of tourism with potential demand. Accessible tourism is considered an opportunity for social integration of PwD. However, due to intrinsic and environmental barriers, the travel demand has not been fully fulfilled. The learned helplessness is diagnosed following Darcy *et al.* (2017), as they note that "within the seemingly narrow World Health Organization's categories, literally thousands of conditions can be diagnosed for an individual's lack of ability that includes PwD with physical (mobility) related impairment; Cognitive impaired (intellectual; psychiatric, learning disabilities), and Sensory impaired due to problems related to vision and hearing". These categories were the basis of data collected from the sample. The findings of the study further revealed that the real

Table 6 Results of mediation analysis

Hypothesis	*Relationship*	*Direct without mediator*	*Direct with mediator*	*Indirect*	*Result*
H5	Intrinsic constraint → Learned Helplessness → Intention to travel	−0.374 (0.001)	−0.135 (0.011)	−0.115 (0.001)	Partial Mediation
CMIN/DF		2.404			
GFI		0.909			
AGFI		0.861			
CFI		0.966			
RMSEA		0.062			

helplessness – could be seen in those with profound restrictions due to aging and need 24 h support (Darcy and Buhalis, 2011; Dwyer and Darcy, 2010). In addition to these, among the PWDs having types of disability: Mobility-impaired, Cognitive, Sensory impairments, PWD with mobility disabilities with high or very high support needs faced more constraints that subsequently resulted in learned helplessness (McKercher and Darcy, 2018; Murray and Sproats, 1990).

Although the Government of India has initiated many policies for accessible tourism as "Tourism for All", PwD is still facing many difficulties such as access to local facilities (for example, railway stations, buses) and accommodation facilities (size of the rooms, staircases, lifts, bathrooms are not adequate and equipped). Awareness and the specific staff training among the tour operators are low. These factors further influence the travel intention among the PwD.

Further, the PWD individuals who intend to travel any tourist destination may encounter intrinsic and environmental constraints. These constraints may drive at varied levels and should be overcome consecutively to create participatory intention. As such, the present work validated the generalizability of travel constraint hierarchy model (e.g. Daniels *et al.*, 2005; Lee *et al.*, 2012) in the Indian context of PwDs.

5.1 Theoretical implications

The study presents travel constraints and their impact on behavioral outcomes among PwD tourists. First, we applied the theory of learned helplessness to investigate the travel constraints and their impact on behavioral outcomes among PwD tourists. Thus via the use of this theory with the psychological mediator of learned helplessness, this study contributes to the existing body of literature in the domain of tourism, specifically for PwD tourists. This paper, therefore, facilitated a complete understanding of the psychological mechanism behind PwD tourists' decision-making process.

Additionally, results mainly focused on intrinsic and environmental constraints that might reduce PwD tourists' intentions to travel, while their travel expectations might support travel contribution. So far, only some insights are provided on how PwD tourists identified and practiced constraints, learning, and expectation. The conceptual model developed in this study, therefore, concentrated on how constraints and expectation plans can work together to outline PwD tourists' travel intention. To the best of the authors' knowledge, comparable attempts were scant in previous research marking constraint-intention-expectation gaps.

As travel and tourism opportunities are the rights of any individual, focusing on removing the barriers to travel may contribute to the well-being of the disabled population and other stakeholders of society. This study will create awareness among the policymakers, civic leaders or government departments and agencies through traditional and social media and provide measures for the betterment of PwD tourists. The researchers can get insight into how to cater to the special needs of PwD by creating online communities, social networks and social media pages for packages and information specially designed for PwD tourists.

5.2 Practical implications

This study is important for tourism practitioners such as tour operators and hotel managers to consider PwD as a potential section of tourists.

First, the practitioners may look into intrinsic and environmental constraints as creators of perceptions of learned helplessness, thereby, finding measures to overcome these barriers. Hotel elevators, staircases, vehicles should be designed as per PwD friendly norms.

Second, the managers and employees may foster a superior sense of empowerment among those with disabilities through creating PwD friendly social media platforms to plan and get help before and during their travel that further may lessen or help them to overcome the perception of learned helplessness.

Third, customized travel packages for PwD can be designed to satisfy the needs of the niche market of PwD. Tour operators and Hotels may make available accurate information about travel scope and arrangements for PwD on their websites.

Fourth, the managers should not consider PwD as a homogenous group, and training regarding specific needs of PwD may be provided to the employees to enhance the intention to travel.

Finally, managers can create Internet-based services for PwD tourists and provide information by creating social media pages. To help them to access online content, a variety of assistive technologies (screen readers, alternate keyboards and refreshable braille displays) can be developed by the managers.

6. Conclusion, limitations and future research directions

This study aimed to investigate to find the factors that influence learned helplessness among the PwD tourists' that result in intention to travel and PwD expectation from the service provider. To achieve the research goal, a conceptual framework has been developed by presenting the relationships among the influential factors, validate them scientifically and systematically presenting results. Tour operators can be benefitted from accessible tourism with substantial economic benefits by diversifying tourism services and improving the quality of the offer. In addition to this, the inclusion of PwD in mainstream tourism may contribute to the national tourism industry by creating jobs and more foreign exchange.

In addition, regardless of the implications of this study, further research is required to beat a number of limitations of present research; these speak about mainly to the respondent sample, i.e. PwDs and generalizability of the findings. Firstly, although this study emphasizes on investigating causal associations between travel constraints, learned helplessness, intention to travel, tourist expectations along with the requirement to get adequate data to use SEM, this work considers PwDs as a homogenous set of group. Consequently, it does not study the effect of diverse forms and rigorousness of disability on such underlying connections. Thus, current work highlights the critical call for future comprehensive works of such issue.

Secondly, the sample size was selected from North East Region of India from numerous places catering particularly for the disabled people. Despite the fact that these places presented great access to target population, advocates that sample are equipped to employ in societal involvement; as a result they have possibly defeat a few or every travel constraints come across and may not be really representative of the disabled.

Thirdly, in this study, the respondents were Indian. This undoubtedly limits the generalizability of findings to PwDs of other countries, and consecutively, supports earlier calls (Groschl, 2007; Poria *et al.*, 2010) for requirement of more cross-cultural work in this area.

Fourthly, though we established that learned helplessness contributes an essential role in linking travel constraints with people intention to travel and travel expectations, this learned helplessness may be affected through some other individual attributes such as personality traits, ability to communicate with others effectively, etc. The succeeding work would investigate psychological traits which can add to difference in learned helplessness to further improve the proposed constraint-intention-expectation model.

Lastly, scholars might study our main phenomenon from sociology and anthropology point of views, for instance via assessing how the appearance of PwD, their social prestige and generational gap among PwDs may form travel intentions and consumption behavior.

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Appendix

Table A1 Scale items and name of sources

Variable name	*Scale Items*	*Source*
Intrinsic constraint	1. Fear of doing something by myself 2. Fear of not getting along with other people 3. Travel imposes requirements that are beyond my capabilities 4. Fear of causing others discomfort and inconvenience 5. Being in a situation where I need others help to do something 6. Lack of knowledge about traveling without discomfort and inconvenience	Wen *et al.* (2020)
Environmental constraint	1. Various regulations faced while traveling 2. Inappropriate physical conditions of tourist destinations 3. My condition requires me to wear assistive devices 4. Inconvenient facilities 5. Lack of my physical ability to move around freely 6. Inconvenient transportation facilities to use	Lee *et al.* (2012)
Learned helplessness	1. Traveling is not a kind of thing for me to enjoy 2. Traveling only gives me a pain 3. Traveling makes me in a gloomy mood 4. Traveling is not fit for me 5. Comfortable traveling does not exist for me	Ying *et al.* (2021), Wen *et al.* (2020)
Intention to travel	1. Whenever I have a chance to travel, I will 2. I will do my best to improve my ability to travel 3. I will keep on gathering travel-related information in the future	Ying *et al.* (2021)
Expectation	1. The travel agency will have employees who will give me personal attention 2. The employees of the travel agency will understand the specific needs of mine 3. When I will have a problem, the travel agency will show a sincere interest in solving it 4. Employees of the travel agency will be consistently courteous with me 5. The travel agency will have up-to-date equipment and technology to assist me	Ryan and Cliff (1997), Dean (2004), Wong and Dioko (2013)

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