

Post-Covid Tourist Behavior Reflection in Trip Planning: A Study of Seismic Shift due to Demographics

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Abstract

This empirical study aims to study the seismic shift in the post-COVID travel behaviour of Indian tourists due to demographic variables. Secondly, it analyzes the effects of travel restrictions on tourists' travel plans. This study is based on primary data, a systematic literature review, and experts' opinions on the tourism area. A web-based and offline survey was done using the purposive and snowball sampling techniques. Furthermore, the data were analyzed using descriptive analysis, exploratory factor analysis, an independent t-test, and the analysis of variance technique. The data analysis revealed stunning results, where no significant difference was found in the travellers' behaviours according to their gender and marital status. However, the travellers' age, education, occupation, annual family income, and purpose of travel greatly influence their travel behaviour. It was found that travel restrictions significantly impacted the travel plans of the travellers, and travellers did not want to resume travelling for at least six months. Travellers postponed and sometimes cancelled their travel plans till they could find some safe options for travel. To overcome this situation, travel suppliers can customize their products to tourists' "new" behaviour, focusing on respective demographic variables and the effects of travel restrictions on their travel plans following the age of acceleration. Yet, the small sample size of the study would limit the generalization of this research. Further, this study may be conducted in other industries, such as retail, to identify consumer post-COVID purchasing behaviour changes.

Keywords: COVID-19, India, Tourist Behavior, Travel Restrictions, Demographic Variables, Travel Planning.

Introduction:

The world witnessed an unusual scenario at the start of 2020 due to the COVID-19 pandemic. Although there had been other significant outbreaks in past decades, such as Ebola, SARS, and MERS, the world had not faced any other calamity with such a huge and negative impact on the economy and society (Hao et al., 2021; Gössling et al., 2020). While the lockdown and travel restrictions significantly affected all

economic sectors, the tourism and hospitality industries appeared to be the most significant crisis sufferers (Gössling et al., 2020). Several tourist firms went bankrupt due to reduced travel demand and suffered massive losses (Wen et al., 2020). As the outbreak began to halt, governments began to devise methods to reintroduce travel and reestablish economic development in the country, incorporating advanced technology into this sector because preparing for the re-launch necessitates a substantial shift within the tourism sector, including extensive reorganization and new procedures (Matiza, 2020). The tourism sector has been recognized as vulnerable to catastrophic occurrences; either they are natural or artificial calamities that threaten personal safety, security, or health (Isaac & Keijzer, 2021). The introduction of information technology during the age of acceleration has also significantly impacted this sector. On the brighter side, this new technology in the tourism sector would help revive this industry from this pandemic. Further, the age of acceleration also brought a paradigm shift in travellers' behaviour over the years, where the influence of information technology in the tourism sector has altered the travel planning process (Xiang, 2017). But, the emergence of the COVID-19 pandemic has drastically shifted tourists' perceptions, expectations, and attitudes toward travel (Liu et al., 2021). The tourism industry's post-pandemic business plans eventually account for reductions and changes in tourist demand (Chebli & Ben said, 2020).

The recovery following any disaster necessitates studies on altering customer behaviour and perceptions to identify changes in demand characteristics. Soon after the COVID-19 outbreak, several researchers investigated this unique situation and its influence on consumers' lives, particularly the tourism sector (Teeroovengadum et al., 2021). Most research focuses on tourism sector's present effects and negative repercussions (Abraham et al., 2020). However, prior studies extensively explore the supply-side viewpoint, assess the significant harm, project the resulting changes, and redesign tourism offerings (Gössling et al., 2020). However, demand-side research is still limited due to economic uncertainties and the ongoing fear of infection. Nonetheless, a few articles examined the emerging indications of consumer recovery and a willingness to

renew their travel plans.

Post-pandemic travel behaviour shows that the crisis seems to be causing fear and uncertainty in various areas of tourists' daily lives (Chebli & Ben said, 2020). Still, people continue to have a positive attitude toward travelling but do not show an increase in travel (Das & Tiwari, 2020). However, this pandemic has fundamentally changed the whole scenario of the tourism sector. Hence, there is a need to reorganize this sector while considering the shift in the travel behaviour of travellers. Considering the advantages of information technology in this industry, since reorganization in this sector would provide an innovative structure.

In the framework of the preceding debate, this paper takes a demand-side approach and focuses on post-COVID travellers' behaviour seismic shift due to demographics as demographic variables are significant in studying this shift in the post-COVID travel behaviour of tourists (Khaddar & Fatmi, 2020). Few studies have looked at travel behaviour, and previous research has shown that the most relevant demographic and socioeconomic factors are gender, marital status, age, occupation, education, income, and purpose (Abdullah et al., 2020; Božić & Jovanović, 2017; Kwan and Kotsev, 2014; Abuhamoud et al., 2013; Deutsch et al., 2013; Luchs & Mooradian, 2011; Batra, 2009; Elias et al., 2008; Srinivasan, 2005; Shoham et al., 2004; Dieke, 2001; Peters, 2001). The severe effects of COVID and its perceived risk have been studied in the tourism sector, but travellers' post-COVID behaviour has not been checked for various demographic variables, making it significantly necessary to understand the reasons behind such altered behaviour so that futuristic strategies can be tailored according to the specific demographic variables. Considering this research gap in the tourism literature, the following three research objectives have been developed:

- a. To explore the factors of post-COVID travel behaviour.
- b. To determine the effect of travel restrictions on tourists' travel planning.
- c. To analyze the post-COVID travel behaviour of tourists concerning its demographic variables.

Studying the post-COVID travel behaviour of tourists concerning its demographic variables is the novelty of this empirical paper, where critical factors that constitute the post-COVID travel behaviour of travellers would also be considered. Next, the effect of travel restrictions on tourists' travel planning would be determined to know the severity of these restrictions in the tourism industry.

This research paper would help tourism and hospitality marketers redesign the tourism marketing strategies and introduce tourism products or services in line with the acceleration age of information technology for relevant demographic variables. This would help to fulfill travellers' individual needs and requirements in this post-COVID scenario. Further, studying the impact of travel restrictions on the travel planning of travellers would help understand the issues they face so that tourism authorities can seek out such problems and come forward with adequate solutions.

Theoretical Background and Hypotheses Development:

The effect of the coronavirus on tourists' behaviour has been studied by previous researchers considering the supply-side approach (Chebli & Ben said, 2020), destination perception (Teeroovengadam et al., 2021; Bhati et al., 2020), travel intention (Hao et al., 2021), travel attitude (Abraham et al., 2020), travellers' expectations (Das & Tiwari, 2020) and travel activities (Khaddar & Fatmi, 2020). A profound evaluation of the literature provided the theoretical background to support the research gap for this study. While reviewing the literature, a research gap was seen concerning the lack of studies to analyze the tourists' demographic variables for their post-COVID travel behaviour on the demand side approach. It was observed that the perceived associated risk of COVID-19 impacted the travel behaviour of travellers (Isaac & Keijzer, 2021; Liu et al., 2021; Teeroovengadam et al., 2021; Yağcı et al., 2021; Matiza, 2020). In a study by Gupta et al. (2021), a relationship between pandemic risk and travellers' trip avoidance behaviour has been studied. However, it was found that this pandemic had influenced tourists' prior outbound travel behaviour. In their study, Isaac & Keijzer (2021) investigated whether COVID-19 has significantly affected the travel intentions of tourists that impacted their travel planning. In China, Liu et al. (2021) discovered that

behavioural intention and prior outward travel behaviour significantly moved post-pandemic outbound intentions. Furthermore, studies were conducted to examine the impact of this pandemic on tourist travel plans (Abraham et al., 2020). While Chinazzi et al. (2020) studied the effect of travel restrictions on coronavirus dynamics; they concluded that travel restrictions helped slow the spread of the virus.

Considering the relevant literature, hypotheses have been formulated regarding analyzing the post-COVID travel behaviour of tourists concerning its demographic variables:

1. **Gender:** Gender is a significant predictor of travel (Elias et al., 2008). The authors employed a tour-based strategy to analyze travel behaviour in Arab-Israeli communities. They found that men spend substantially more time travelling than women. Similarly, Kwan (1999) observed that women in Ohio had more regimented travel patterns than males. However, Kwan and Kotsev (2014) found that women travel more than men. The findings of Shoham et al. (2004) and Kitamura & Van Der Hoorn (1987) demonstrate considerable variations in the travel behaviour of travellers for gender. However, these findings contradict Deutsch et al. (2013) and Batra (2009). Gender differences in travel behaviour have been extensively documented in the literature. According to research conducted in Brazil by Turner and Fouracre in 1995, males commute to work more often than women. Similar findings were obtained in studies conducted in India (Srinivasan, 2005; Dieke, 2001). These studies, on the other hand, were executed for commuter travel. However, the emphasis of this study paper is on domestic and international travelling. COVID-19 has a substantial effect on the tourism industry, which may have a different impact on men's and women's travel behaviour. As a consequence of the prior findings of previous investigations, the following hypotheses have been formed:
 - H1:** There are significant differences in post-COVID travel behaviour for genders.
2. **Marital status:** The influence of marital status on

travel behaviour is likely to be slightly different for single and married people since single people fulfill all home responsibilities regardless of gender, but married people may concentrate on their jobs along with conventional gender-based patterns. As a result, risk perception may alter depending on the travellers' marital status. A considerable difference in single people's travel behaviours is predicted compared to married people's travel behaviours. However, the prior authors found no significant differences in people's travel behaviours according to marital status (Shoham et al., 2004; Kitamura & Van Der Hoorn, 1987; Deutsch et al., 2013; and Batra, 2009). Similarly, in the study of Pas & Koppelman (1987), the author looked at how people's marital status affected their travel behaviour and concluded that married people have less flexibility to change their travel behaviour than single people since they are subject to substantial family coupled limitations. Based on the prior findings of the authors, the following hypothesis has been developed:

H2: There are significant differences in post-COVID travel behaviour across the marital status of the travellers.

3. **Age:** Age is a substantial factor that could influence the travel behavior of the travellers. Younger people's risk perceptions vary from older people, and younger people are more willing to incur risks while travelling than older people. According to Abuhmoud et al. (2013), demographic characteristics such as age had a significant role in explaining trip planning behaviour in Libya. The findings shed light on several variables that influence age-related changes in travel behaviour. Both Deutsch et al. (2013) and Batra (2009) found substantial disparities in travel behaviour across different age groups of travellers. As a result, the following hypotheses have been proposed:

H3: There are significant differences in post-COVID travel behaviour for age categories.

4. **Occupation:** Job status significantly influences travel behaviour as being employed restricts individuals' capacity to modify their behaviour (Elias et al., 2008).

Individuals must be in specified locations to execute specific vocational duties. Unlike jobless people, particular jobs need individuals to carry out their tasks and travel for work-related responsibilities. As a result, working people are willing to risk losing their employment. Considering work-related coupling limitations into account, the following hypothesis emerges.

H4: There are significant differences in post-COVID travel behaviour for occupation.

5. **Education:** In their research, Božić&Jovanović (2017) looked at the impact of several socio-demographic characteristics on travellers' behaviour, with education being one of them. Their findings demonstrate considerable discrepancies between different education categories among respondents with various degrees of education. Such as, highly educated individuals travel more often than those less educated. However, these findings were in line with Luchs&Mooradian (2011). This might be because more educated individuals get appropriate information about safety measures adopted at their destination or accommodations from reliable sources before going on a trip. While less educated people may lack knowledge and understanding of this reliable information. The hypothesis that has been suggested is as follows:

H5: There are significant differences in post-COVID travel behaviour for education categories.

6. **Annual family income:** Income is a measure of social status. Those with higher social levels are more likely to engage in social and leisure activities than those with lower social standing. As a result, people with a higher income group, particularly those with a higher family income, may have a different perception of the COVID-19 risk than those with a lower family income. In addition, they can better afford the hygienic resources for their family at the destinations and accommodations. However, Shoham et al.'s (2004) findings revealed no significant differences in traveller behaviour in income groups. But a substantial difference was discovered in Deutsch et al. (2013).

These factors lead to the construction of the following hypothesis:

H6: There are significant differences in post-COVID travel behaviour for annual family income.

7. **Purpose of travelling:** People travel for various reasons, including leisure, business, visiting friends or relatives, pilgrimage, etc. Differences in the travel goal may reflect differences in the travellers' post-trip behaviour. Travel for leisure or visiting friends, or relatives may be postponed due to travel risks, but business travel cannot. Furthermore, according to Abdullah et al. (2020), the reason for the trip before and during the pandemic is considerably different, indicating a variation in travel behaviour. As a result, the following hypothesis has been suggested:

H7: There are significant differences in post-COVID travel behaviour for travel purpose.

Further, this research paper follows two theories: the Social Cognitive Theory (SCT) and the Protection Motivation Theory (PMT), to provide a theoretical framework to understand post-COVID travel behaviour concerning the demographic profile of tourists.

- (1) **The Social Cognitive Theory (SCT):** Albert Bandura established this theory (1986), and it believes that learning happens in a social setting, with constant and mutual interaction between the individual, their environment, and their behaviour. The idea of SCT is to describe how humans control and regulate their behaviour to develop goal-directed behaviour that can continue over time. Changes in the environment will immediately lead to changes in the individual since this pandemic has fundamentally impacted the tourism industry, which influences the post-COVID travel behaviour of travellers. Hence, tourists could experience a possible shift in their post travel behaviour. This shift in travel behaviour amounts to protective actions, supported by the following theory.
- (2) **The Protection Motivation Theory (PMT):** R.W. Rogers established this theory in 1975 to understand

better how individuals deal with fear appeals. Richard Lazarus's study on how individuals act and manage under stressful circumstances created the foundation for this hypothesis. People differ in their sensitivity and susceptibility to particular situations and their perceptions and responses. Threat and a coping appraisal are two characteristics people use to protect themselves. Threat appraisal evaluates the seriousness of the circumstances, while coping review evaluates how one reacts to the situation. Primary prevention involves reducing the likelihood of acquiring a health concern, and secondary prevention involves taking actions to keep a problem from escalating (Westcott et al., 2017). Therefore, travellers fear the severity of this crisis and seek every necessary step to reduce the perceived risks of travel to protect themselves, such as cancelling or postponing their trips. Further, they would consider the feasibility of travelling to and avoiding COVID-affected destinations until health safety is ensured.

In light of the above supporting theories, theoretical background, and literature review, this paper proceeds to assess the impact of this pandemic on post-COVID travel behaviour for various demographics and considers the effects of travel restrictions on their travel planning as the study's objectives.

Methodology

The current research is exploratory and descriptive and is based on primary data. The influence of travel restrictions on trip planning and post-COVID travel behaviour was measured using a well-structured comprehensive questionnaire measured on a five-point scale. The questionnaire was adapted from the studies of Bratić et al. (2021) and Chinazzi et al. (2020) with a few alterations based on the study's objectives, expert opinions of academicians, and respondents' suggestions during the pilot test. Non-probability sampling, such as purposive and snowball sampling, was employed, although a great effort was made to ensure that respondents from varied demographic profiles were included. The questionnaire link developed on Google forms was sent through social

networking sites and Gmail contacts online. Tourists who had or proposed to make trips from April 2020 were taken as the sample unit as lockdown, and travel restrictions were implemented in India in the last week of March 2020. From April 1, 2020, onward, the period was selected to collect data on post-COVID travel behaviour responses. A total of 200 survey questionnaires were sent. After deleting incomplete responses, 170 responses were considered for final data analysis, representing a success rate of 85 per cent, reckoned to be good because of time and cost constraints, especially in this pandemic. There were three sections to the questionnaire. In the first section, respondents were asked about the impact of travel restrictions on their trip planning due to the coronavirus. They were asked to tick one option, ranging from no effect

to significant effect. They were also asked how long they would avoid travelling if the travel ban was lifted. Here they had to tick from options ranging from 0 days to more than six months. The second section had a list of eight items of post-COVID travel behaviour. They were to tick off one item's parameters depending on their judgment of agreement or disagreement. The third section was created to collect demographic data from respondents. Cronbach's Alfa was computed for all the dimensions to test the instrument's reliability. Further, descriptive analysis, exploratory factor analysis (EFA), an independent t-test, and analysis of variance were applied to conduct quantitative research on the study's objective. The established scale used for this study is shown in Table 1.

Table 1: Summary of scales used

Impact of travel restrictions imposed due to COVID-19 on travel planning	no effect minor effect neutral effect moderate effect major effect	Chinazzi et al. (2020)
Would you avoid travelling for how long if the travel ban is lifted?	0 days 15 days 1 month 3 months 6 months more than 6 months	
Post-COVID Travel Behaviour		
I cancelled my travel plan completely because it is not safe to travel.	Five-point likert scale: Strongly disagree (1) to Strongly agree (5)	Bratić et al. (2021)
I cancelled my travel plan completely because it is not feasible.		
I postponed my travel till travel ban was lifted.		
I am looking for a feasible option to travel.		
I will not travel to crowded big cities.		
I will decrease the length of the tour.		
I choose destinations within a short distance for leisure travel.		
In selecting tourist destinations, I will avoid COVID-19 affected destinations.		

Results:

Demographic data analysis: Table 2 shows the frequency distribution of the demographic profile of the respondents. The mean score was obtained by assigning 1,2,3,4 and 5 to the responses, i.e., strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree

(5). The data was analyzed using SPSS version 26.0 to calculate percentages and frequencies. The majority of the respondents in the current study are tourists, with the age group being 31–40. 43.5% of the respondents were female, while 56.5% were male. About 41.2% of respondents were graduates, while 44.1% were postgraduates. 60% of

respondents were married, and 40% were single or unmarried. The majority of 31.8% of respondents were employed in private jobs, and around 38.2% of respondents

belonged to the bracket of 6 lakh to 10 lakh family annual income. Most of the respondents' purposes for traveling were leisure (39.4%).

Table 2: Demographic profile of the respondents

Demographic variables	Frequency	Per cent %
Gender		
Male	96	56.5
Female	74	43.5
Marital status		
Single/unmarried	68	40
Married	102	60
Age		
21-30	50	29.4
31-40	65	38.2
41-50	30	17.6
51 and above	25	14.7
Occupation		
Government job	24	14.1
Private job	54	31.8
Self employed	28	16.5
Student	48	28.2
Home-maker	16	9.4
Education		
Secondary school	25	14.7
Graduation	70	41.2
Post-graduation	75	44.1
Family annual income		
Less than 3 lakh	10	5.9
3 to < 6 lakh	35	20.6
6 lakh to < 10 lakh	65	38.2
10 and above	60	35.3
Purpose of travelling		
Leisure	67	39.4
Business	70	41.2
Education	7	4.1
Friends/relatives	18	10.6
Pilgrimage	8	4.7

Source: Based on primary data

Table 3 shows that travel restrictions have a major impact of 85.3% on the travel planning of travelers. At the same time, it has only 12.9% of moderate and a minimal percentage of

1.8 neutral impacts on tourists' travel plans. Therefore, it means travel restrictions significantly affect tourists' travel plans.

Table 3: Descriptive statistics of impact of travel restrictions

		Frequency	Percent
Valid	neutral	3	1.8
	moderate	22	12.9
	major	145	85.3
	Total	170	100.0

Source: Based on primary data

Next, Table 4 indicates that 45.9% of the travelers would avoid traveling for a maximum of six months. While 43.5% of travelers would avoid it for more than six months, 7.1% of travelers would avoid it for three months, 1.8% of

travelers would avoid it for one month, and a similar percentage for 15 days. It shows that travelers are risk-averse and prefer to postpone or prevent travel for a maximum time.

Table 4: Descriptive statistics of duration travellers would avoid till travel ban is lifted

		Frequency	Percent
Valid	15 days	3	1.8
	1 month	3	1.8
	3 months	12	7.1
	6 months	78	45.9
	More than 6 months	74	43.5
	Total	170	100.0

Source: Based on primary data

Furthermore, Pearson's correlation coefficients were calculated to check the internal validity of the measurement scale. The results were statistically significant at the 0.05 level, where the highest correlation was 0.542, showing no multicollinearity.

Cronbach's Alpha was also computed for post-COVID

travel behavior items to check instruments' reliability (0.810), which shows high reliability (Hinton et al., 2004). Hence, this value indicates the reliability of the data for further analysis.

A detailed descriptive study of the travelers' post-COVID travel behaviors are given in Table 5.

Table 5: Descriptive statistics of the items of post-COVID travel behavior of the travellers:

	T1	T2	T3	T4	T5	T6	T7	T8
Mean	4.36	4.18	4.15	4.22	4.23	4.08	4.23	4.21
Std. Deviation	.95	.66	.47	.68	.76	.69	.75	.74

Source: Based on primary data

Among these items of post-COVID travel behavior, "I canceled my travel plan completely because it is not safe to travel" (TB1) is the most critical variable (MV = 4.36, SD = .95). It shows that tourists are risk-averse and do not want to take any risks at any cost, so they prefer to cancel their trips altogether. The second highest variables were: "I will not travel to crowded big cities" (TB5) (MV = 4.23, SD

=.76) and "I choose destinations within a short distance for leisure travel" (TB7) (MV = 4.23, SD =.75), which shows that tourists don't want to travel too far and too crowded cities, as there are more chances of infection by this deadly virus in such crowded cities and they are not safe. The third highest variable is "I am looking for a feasible option to travel" (TB4) (MV = 4.22, SD =.68); hence, tourists seek

feasible options to travel in case of any emergency. The following highest variable is: "In selecting tourist destinations, I will avoid COVID-19 affected destinations" (TB8) (MV = 4.21, SD = .74), which means that tourists are cautious about their destination selection and avoid COVID-19 affected places. And the other two variables, "I canceled my travel plan completely because it is not feasible" (TB2) (MV = 4.18, SD = .66) and "I postponed my travel till the travel ban is lifted" (TB3) (MV = 4.15, SD = .47), where tourists canceled their trips on the grounds of infeasibility, even travelers postponed their trips until the ban was lifted. Hence, the authorities should ensure their health and safety at destinations and accommodations. The last variable, "I will decrease the length of the tour" (TB6)

(MV = 4.08, SD = .69), shows that tourists agree to shorten tours for health reasons. Hence, most of the tourists agreed to the given items.

Next, exploratory factor analysis was performed on the post-COVID travel behavior items following the Principal Component Analysis (PCA) and Varimax rotation. The communality of the scale was tested, and the findings showed that all communalities were more than 0.50. Furthermore, Bartlett's Test of Sphericity revealed a statistical probability that correlation matrix's components had significant correlations. The findings were significant, with $\chi^2 (n = 170) = 528.827 (p < 0.05)$, indicating factor analysis applicability (Table 6).

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.741
Bartlett's Test of Sphericity	Approx. Chi-Square	528.827
	df	28
	Sig.	.000

Source: Based on primary data

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.741, a good result for factor analysis. Finally, the factor solution produced two factors that explained 62.915 percent of the variance among the items in the data. Factor 1

includes TB4, TB5, TB6, TB7, and TB8, referring to "Cautious Travel Viability". Factor 2 incorporates TB1, TB2, and TB3, representing "Perceived Travel Risk-Averse". Factor loadings are presented in (Table 7).

Table 7: EFA Results

Items	Loadings	Communalities
Cautious Travel Viability (Factor 1)		
TB5	.874	.777
TB8	.815	.687
TB7	.774	.637
TB6	.761	.649
TB4	.691	.509
Perceived Travel Risk-averse (Factor 2)		
TB3	.799	.638
TB2	.752	.585
TB1	.705	.551
Total variance explained	62.91%	

Source: Based on primary data

Data Analysis for various categories of demographics: Factor1 (Cautious Travel Viability) and Factor2 (Perceived Travel Risk-Averse) were studied simultaneously for the demographic variables (gender, marital status, age,

occupation, education, annual family income, and travel purpose) of the tourists, which constitute the post-COVID travel behavior.

Table 8: Independent t-test and Anova test analysis of Demographic variables

Hypothesis	Significance level		Mean values	SD	Result
	t-test	Levene's Test for Equality of Variances			
Gender—cautious travel viability	0.272	0.007	Males = 4.26 Females = 4.15	0.54 0.70	insignificant
Gender—perceived travel risk-averse	0.349	0.062	Males = 4.15 Females = 4.22	0.44 0.49	insignificant
Marital status-- cautious travel viability	0.507	0.105	Single/unmarried = 4.18 Married = 4.24	0.65 0.59	insignificant
Marital status --perceived travel risk-averse	0.490	0.947	Single/unmarried =4.15 Married = 4.20	0.46 0.46	insignificant
	Anova	Homogeneity of variance			
Age-cautious travel viability	0.000	0.000	21-30 = 4.15 31- 40 =4.08 41- 50 = 4.55 51 and above = 4.32	0.65 0.70 0.16 0.52	significant
Age-perceived travel risk-averse	0.002	0.020	21-30 = 4.22 31-40 = 4.07 41-50 = 4.41 51 and above = 4.10	0.44 0.50 0.32 0.46	significant
Occupation-cautious travel viability	0.000	0.000	Government job = 4.27 Private job = 4.31 Self-employed = 4.59 Student = 3.97 Home-maker = 3.88	0.62 0.59 0.22 0.66 0.66	significant
Occupation-perceived travel risk-averse	0.000	0.874	Government job = 4.33 Private job = 4.26 Self-employed = 4.38 Student=4.03 Home-maker = 3.77	0.39 0.44 0.42 0.45 0.44	significant
Education-cautious travel viability	0.000	0.000	Secondary school =4.58 Graduation = 4.16 Post-graduation =4.49	0.22 0.60 0.68	significant
Education-perceived travel risk-averse	0.163	0.004	Secondary school = 4.30 Graduation = 4.16 Post-graduation = 4.16	0.31 0.47 0.49	insignificant
Annual family income-cautious travel viability	0.002	0.000	Less than 3 lakh = 3.92 3 to < 6 lakh = 4.09 6 lakh to < 10 lakh = 4.12 10 and above = 4.45	0.98 0.67 0.64 0.38	significant
Annual family income-perceived travel risk-averse	0.059	0.000	Less than 3 lakh = 4.13 3 to < 6 lakh = 4.08 6 lakh to < 10 lakh = 4.12 10 and above = 4.30	0.42 0.43 0.54 0.38	insignificant

Hypothesis	Significance level		Mean values	SD	Result
Purpose of travelling-cautious travel viability	0.000	0.000	Leisure = 4.29 Business = 4.44 Education = 4.00 Friends/relative = 3.63 Pilgrimage = 3.15	0.60 0.35 0.63 0.74 0.23	significant
Purpose of travelling--perceived travel risk-averse	0.000	0.562	Leisure = 4.27 Business = 4.25 Education = 3.83 Friends/relative = 3.83 Pilgrimage = 3.79	0.44 0.39 0.58 0.47 0.50	significant

Source: Based on primary data

Table 8 shows the results of the independent t-test used for gender and marital status, while analysis of variance used for age, occupation, education, annual family income, and travel purpose is explained as follows:

Gender: There was no significant difference ($t(df) = 133.88, p = .272$) in scores for males ($MV = 4.26, SD = .54$) and females ($MV = 4.15, SD = .70$). Similarly, there was no significant difference ($t(df) = 168, p = .349$) in scores for males ($MV = 4.15, SD = .44$) and females ($MV = 4.22, SD = .49$) concerning the perceived travel risk-averse factor. Also, the magnitude of the differences in the means for both factors was insignificant.

Marital status: There was no significant difference ($t(df) = 168, p = .507$) for factor 1 in scores for single ($MV = 4.18, SD = .65$) and married ($MV = 4.24, SD = .59$). Similarly, there was no significant difference ($t(df) = 168, p = .490$) in scores for single ($MV = 4.15, SD = .46$) and married ($MV = 4.20, SD = .46$) for perceived travel risk-averse. The magnitude of the differences in the means of both factors was insignificant.

Age: The homogeneity of variance value test was $p < .05$ for both factors; hence, the Welch test was done, suggesting that cautious travel viability and perceived risk-averse scores across the age groups differ significantly ($p < .05$). A post-hoc comparison using the Games-Howell test was selected to check the individual differences between groups. The test indicated that the mean score of factor 1 for 21–30 ($MV = 4.15, SD = .65$) and 31–40 ($MV = 4.08, SD = .70$) was significantly different from 41–50 ($MV = 4.55, SD = .16$). Similarly, the mean score of factor 2 for the 31–41 ($MV = 4.07, SD = .50$) and 51 and above ($MV = 4.10, SD$

$= .46$) age groups was significantly different from the 41–50 ($MV = 4.41, SD = .32$).

Occupation: The homogeneity of variance and Welch tests suggest that the travel viability scores of the occupation groups differ significantly ($p < .05$). The Games-Howell test indicated a mean difference at 0.05 level where the mean score for private job employees ($MV = 4.31, SD = .59$) was significantly different from the self-employed ($MV = 4.59, SD = .22$). The mean score for the self-employed differed significantly from private employees, students ($MV = 3.97, SD = .66$), and home-makers ($MV = 3.88, SD = .66$). Further, the mean score for students and home-makers significantly differed from the self-employed. Since the homogeneity of variance value for perceived travel risk-averse was more significant than .05 ($p > .05$). Hence, the ANOVA test suggested that the occupation groups' travel risk scores differ significantly ($p < .05$). The Tukey test indicated that the mean score for government job employees ($MV = 4.33, SD = .39$), private employees ($MV = 4.26, SD = .44$), and self-employed ($MV = 4.38, SD = .42$) was significantly different from home-makers ($MV = 3.77, SD = .45$). The mean score for self-employed ($MV = 4.38, SD = .42$) people differed significantly from that of students ($MV = 4.03, S = .44$).

Education: The Welch test was used to homogeneity variance with a $p < .05$, suggesting that the education group's travel viability scores differ significantly. Further, the Games-Howell test indicated that the mean score for secondary education ($MV = 4.58, SD = .22$) was significantly different from graduation ($MV = 4.16, SD = .60$) and post-graduation ($MV = 4.49, SD = .68$) for

cautious travel viability. However, the Welch test reported a $p > .05$ depicting insignificant result for perceived travel risk-averse

Annual family income: The test for homogeneity of variances shows $p < 0.05$. The Welch test shows a significance value of less than 0.05 ($p = 0.002$). A significant difference in travelers' post-COVID cautious travel viability for various categories of annual family income was seen. The Games-Howell indicated that the mean score for 3 to less than 6 ($MV = 4.09, SD = .67$) and 6 to less than 10 ($MV = 4.12, SD = .64$) was significantly different from 10 and more ($MV = 4.45, SD = .38$). Next, for perceived travel risk-averse, the test homogeneity of variances shows $p < 0.05$. Hence, the Welch test was done, which offers a significance value of $p = 0.059$, more than 0.05. It indicates no significant difference in the post-COVID perceived travel risk-averse of travelers for various categories of annual family income.

Purpose of traveling: The test of homogeneity of variances shows $p < 0.05$. Hence, the Welch test was done, which showed a significance value of less than 0.05 ($p = 0.00$). It shows a significant difference in the post-COVID cautious travel viability of travelers was observed. The Games-Howell test indicated that the mean score for leisure ($MV = 4.29, SD = .60$) and business ($MV = 4.44, SD = .35$) was significantly different from that for friends/relatives ($MV = 3.63, SD = .74$) and pilgrimage ($MV = 3.15, SD = .23$). And the mean score for friends/relatives and pilgrimage differed significantly in leisure and business. For perceived travel risk-averse, the homogeneity of variances shows $p > 0.05$. Hence, the Anova test was done, which shows a significance value ($p = 0.00$). It means a significant difference in travelers' post-COVID perceptions of risk-averse travel behavior. The Games-Howell test for this factor indicated similar results to Factor 2 that showed the mean score for leisure ($MV = 4.27, SD = .44$) and business ($MV = 4.25, SD = .39$) was significantly different from friends/relatives ($MV = 3.83, SD = .47$) and pilgrimage ($MV = 3.79, SD = .50$).

Discussion: This study presented the survey outcomes to explore the seismic shift in tourists' post-COVID travel

behaviour due to demographic variables. In several demographic variables, travel behaviour differs significantly from usual (pre-pandemic) conditions. Secondly, the travel restrictions imposed to contain this virus have greatly influenced the travellers' plans. Some significant results are addressed in this section. About 85.3 per cent of respondents experienced the considerable effect of travel restrictions on their trip plans, and 45.9 per cent of the travellers don't want to resume travelling for at least six months even if the travel ban is lifted. Similar results of 43.5 per cent were also obtained for not travelling for more than six months. These results support the results of Chinazzi et al. (2020), where the author found that people avoided travelling for more than six months, which helped slow down the spread of this virus across the world. This empirical study determines that the travellers' health and safety at the destinations and accommodations in pre-COVID times was not an issue. But the fear of COVID made the travellers alter their normal travel activities and patterns. Hence, travellers have become risk-averse about their health and safety at destinations and accommodations.

Two significant factors: Factor1 (Cautious Travel Viability) and Factor2 (Perceived Travel Risk-averse), were extracted that constitute the post-COVID travel behaviour of tourists. Further, these factors were analyzed for their impact on the demographic profile of the respondents. The primary features of tourists' post-pandemic travel behaviour derived from the research while examining demographic variables indicate that gender and marital status groups do not differ significantly in their post-pandemic travel behaviour for both the factors. It is probably that males and females, either single/unmarried or married, have similar perceptions of travel risk and look for the feasibility of travelling when travel restrictions are lifted. This result contrasts gender with Shoham et al. (2004) and Kitamura & Van Der Hoorn (1987), where a significant difference was found between men and women. These results contradict this research paper because the prior authors studied commuter travel rather than domestic or international travel, which might have caused variations in the results. However, findings are in line with marital status in the study of Shoham et al. (2004).

At the same time, the travellers significantly differ for both factors (cautious travel viability and perceived travel risk-averse) for age categories, which show similar results as Deutsch et al.(2013) and (Batra, 2009). However, significant difference was found among age categories, which might be because of varied perceptions of travel risk and the infeasibility of travelling. While analyzing the respondents' age, it was seen that the respondents of the 21–30 and 31–40 age groups show different travel behaviours for cautious travel viability in contrast with the respondents of the 41–50 age groups. The mean value of the 41–50 age groups (Cautious Travel Viability) indicates that these respondents are more risk-averse than the other two categories. It can be concluded that this age bracket 41–50 is more concerned about seeking travel feasibility. They avoid taking any travel risks for their health and are more cautious than people of a young age. Similarly, for Factor2, respondents of the age group 41–50 significantly differed from the age groups 31–40 and 51 and above groups. The mean values of the 41-50 age group are higher than the other two groups, indicating that they are more risk-averse than other categories and may postpone or cancel their trips based on travel risk.

Similarly, the post-COVID travel behavior for cautious travel viability of private employees, students, and home-makers is significantly different from that of self-employed respondents. For Factor 2, self-employed people are more risk-averse than students and home-makers. These results have been similar to Elias et al.'s (2008) results. Further, the differences in these categories have been because employed people look for safety while travelling for work-related reasons more than in other categories. On the other hand, students and home-makers may postpone or cancel their trips until their safety and health are ensured, but self-employed people have to travel most frequently for work and cannot postpone or cancel their trips.

Next, the respondents belonging to secondary school seek more feasibility of travel than the graduation and post-graduation categories as depicted by their mean values. At the same time, these categories do not differ for Factor2 (perceived travel risk-averse) and hold a similar perception

of avoiding travel risk. On the other hand, the study by Batra (2009) showed insignificant results for these categories.

Further, the respondents of annual family income of 3 lakh to less than 6 lakh and 6 lakh to less than 10 lakh were significantly different from other categories of 10 lakh and above for Factor 1, which is similar to the results of Deutsch et al. (2013) but in contrast to the results of Shoham et al. (2004). It can be seen in this current research that respondents in the 10 to above family income group are more cautious and seek travel feasibility than the other two categories, as indicated by their considerable mean value compared to the two categories. On the other hand, these categories do not differ for Factor2 and show almost similar mean values for all variables.

Finally, the respondents traveling for business trips and leisure look for more travel feasibility than people traveling to meet friends/relatives and pilgrimage. They are more cautious, as indicated by their mean values. These results are similar to those of Abdullah et al. (2020). Thus, respondents travelling for leisure may cancel or postpone their trips due to travel infeasibility, avoid travelling to crowded cities or COVID-affected cities, and choose destinations within short distances.

Such protective actions by travellers demonstrate the suitability and applicability of the Protection Motivation Theory. However, people making business trips may not avoid travelling for work-related tasks, consistent with Abdullah et al. (2020). Hence, following health safety measures has become a crucial consideration for travellers' post-COVID, implying the Social Cognitive Theory. The outcome of the data analysis has well supported and represented the applicability of both theories mentioned in this study.

Theoretical contribution and implications: This empirical paper has bridged the research gap highlighted during the literature review in the tourism industry by determining the effects of this pandemic on travel behaviour for different demographics. Additionally, this study demonstrates how tourists reacted to COVID-19 travel restrictions for various demographic variables and

show changes in tourist behaviour, attitudes, everyday life, and travel plans.

This study has shown that the change in tourists' travel behaviour for demographics influences their travel planning for the post-pandemic. Furthermore, this study used two crucial theories to explain the tourists' behavioural changes, which were supported by the results of the data analysis. It has been seen how tourists perceive the travelling risks and take every necessary protective action to save themselves and their families from any probable health risks.

Managerial implications: The findings of this study pave the way for policymakers in the tourism sector to focus on respective demographic variables and the effects of travel restrictions on their travel plans. It will assist tourism and hospitality marketers in developing future tourism approaches, considering changes in travellers' behaviour. Furthermore, it will make it easier for travel suppliers to customize their products to tourists' "new" behaviour and the issues they face during the imposition of travel restrictions in the country. An emphasis on serenity and recreation would benefit destination marketing. Still, tour operators should consider potential tourists' limited financial resources and tailor their packages appropriately for domestic travel while incorporating information technology into new processes in this era of acceleration. Furthermore, as mentioned earlier, the implementation of new health and safety standards by accommodation establishments and destination marketers is required to satisfy travellers' expectations and legal obligations.

Limitations and future research directions: There are certain limitations to this study. Firstly, the sample size is limited. As a consequence, the findings may not be generalized. Secondly, this study is not region-specific, affecting travellers' responses if further research is done in a particular geographical location. This may cause changes in the study findings for post-COVID traveller behaviour for trip planning. As per future research directions, this study may be conducted in other industries, such as retail, to identify consumer post-COVID purchasing behaviour changes.

Conclusion: The post-COVID travel behaviour data indicate changes in tourist travel behaviour and emphasize the importance of sanitation, a robust health system, and a broad perception of personal safety. Undoubtedly, the tourism sector is still suffering from the effects of the pandemic. Therefore, tourism marketers must hear the voices of tourists and anticipate changes in travel demand. This research looked at the seismic shift in the behaviour of tourists after COVID-19 in the light of supporting theories, i.e., Social Cognitive Theory and Protection Motivation Theory. It has been observed through the outcome of the data analysis that there has been a considerable effect of COVID-19 on the travel behaviour of travellers as determined by Social Cognitive Theory.

Further, the Protection Motivation Theory supports this shift in travel behaviour through the actions of tourists. Travellers take protective measures against the potential risks of travel to secure them and ensure their safety. They cancel or postpone their trips, avoid travelling to COVID-affected cities, or reduce the length of their journeys. Tourists appear enthusiastic and ready to resume their regular travel habits, but they have also assimilated the "new" procedure as an essential benchmark in the tourism sector. As a result, the findings might support tourism and hospitality marketers in establishing appropriate marketing strategies to attract travellers after the pandemic.

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