



THE ECONOMIC IMPACT OF COVID-19 PANDEMIC ON THE TRAVEL AND TOURISM INDUSTRY: KERALA EVIDENCE

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ABSTRACT

COVID-19 pandemic broke out when the travel and tourism industry was at its peak. There was a trend among the new generation spending more time and money on recreational activities as stress relievers. Travel and Tourism were prominent activities in this regard. The spread of the pandemic was so fast and gripping that the country itself got into complete lockdown and consequent shocks in every aspect of the economy. The study attempted to analyze the changes that occurred in the travel and tourism industry as a result of the pandemic. The study made use of statistical tools such as five-point Likert scale analysis, Wilcoxon Test, Chi-Square Test to analyze the impact of Covid-19 pandemic on the Travel and Tourism industry in Kerala. The study inferred from the analysis that lockdowns due to the Covid pandemic had significant and enduring negative impacts on the business prospects of stakeholders in the travel and tourism industry.

KEY WORDS: Travel and tourism industry, Covid Pandemic, Average occupancy rate, Average quarterly turnover

1. INTRODUCTION

The covid-19 pandemic and the consequent lockdowns had brought the social and economic life of the whole world to a standstill. WHO and World Bank in a joint report in 2019 forecasted a drastic decline in global GDP by 2.2 percent to 4.8 percent, to our greatest dismay which seemed to be materialized in the current period. (Chaudhary et al., 2020)

Travel and Tourism is one of the worst-hit industry by the outbreak of the Covid-19 pandemic. Before this unprecedented virus attack, Travel and Tourism were thriving in India. According to World Travel and Tourism Council, Tourism in India fetched the whopping US \$ 240 billion, constituting 9.2 percent of India's GDP in 2018. (Buragohain, 2020)

Kerala blessed with her picturesque beauty and pristine nature is inherently strong in travel and tourism and the industry constituted 10 percent of Kerala's SGDP and contributed a significant 23.5 percent of total employment in Kerala. Thus the Travel and Tourism industry is one of the major

revenue-generating sectors of Kerala. Foreigners and domestic tourists used to frequent Kerala throughout the year. Kerala's nature-rich tourist spots, along with various art forms and rituals make it attractive to tourists. The Covid-19 pandemic has turned everything upside down as people refrain from travel and indulge in a new culture of self-isolation.

The present study is structured in the following ways. Section two delineates the objectives and hypotheses of the study. Section three outlines a brief review of the literature concerning the subject under the study. Section four briefly depicts the methodologies used in the study. Section five elaborates the results and its discussions. Section six summarizes the important findings of the study.

2. OBJECTIVES AND HYPOTHESES

The primary objective of the study was to analyze the impact of the Covid 19 pandemic on the business prospects of the Travel and Tourism industry in Kerala. The following hypotheses were formulated for meeting these objectives :



H₀₁: The Median difference between Average quarterly turnover before lockdown and average quarterly turnover during lockdown equals zero.

H₀₂: The Median difference between average occupancy rate before lockdown and average occupancy rate during lockdown equals zero.

H₀₃: There is no significant association between the types of organization and average quarterly turnover before lockdown.

H₀₄: There is no significant association between the types of organization and average quarterly turnover during lockdown.

3. REVIEW OF LITERATURE

Škare, Marinko et al. in their pioneering study on potential effects of Covid-19 pandemic on the tourism industry estimated the impact of the pandemic crisis on the tourism industry worldwide and concluded that recovery of the tourism industry would take more time than the average expected recovery period of 10 months. (Škare et al., 2021)

Gössling, Stefan et al. in their paper compared the impacts of COVID-19 to previous epidemic/pandemics and other types of global crises and explored how the pandemic might change society, the economy, and tourism. It discussed why COVID-19 was analogous to the ongoing climate crisis, and why there was a need to question the volume growth tourism model advocated by UNWTO, ICAO, CLIA, WTTC, and other tourism organizations. (Gössling et al., 2020)

Monica Chaudhary et al. in their study assessed the impact of Covid-19 on affected sectors such as aviation, tourism, retail, capital markets, MSMEs, and oil. As International and internal mobility was restricted, revenues generated by travel and tourism would take a major toll on the GDP growth rate. (Chaudhary et al., 2020)

Kumar A in his study analyzed how the Covid outbreak broke the backbone of the tourism industry across the country causing a massive loss in employment to 38 million people associated with the

industry. The study also highlighted industry association efforts to pursue a series of reliefs from the central government such as extending the loan repayment proposal by the RBI by three months to six months and complete exemption in GST for one year for the tourism, travel, and hospitality sectors. (Kumar, 2020)

Swarna Abirami, L in her study attempted to discover whether tourism marketing was effective to customers after covid-19 in Kerala and whether customers were willing to go to tourist places after covid-19 and the study also attempted to analyze whether tourism marketing reached the customers through social media as well as checked whether customers were willing to travel after covid-19. (Swarna Abirami, 2020)

4. RESEARCH METHODOLOGY

The population of the study consisted of the service providers in the travel and tourism industry namely, the travel agents, tour operators, amusement parks, and hotel chains. The area selected for study was in the Ernakulam district of Kerala State. The sample size of the study was limited to 50. A well-structured questionnaire was constructed and data were collected online. The study utilized statistical tools such as five-point Likert scale analysis, Wilcoxon Test, Chi-Square Test for analysis and inferring conclusions.

5. RESULTS AND DISCUSSION

5.1. Likert Scale Responses on various dimensions of Business in Travel and Tourism

Under this section, the results of the analysis of data collected through the survey are discussed. The study analyzed the business of the Travel and Tourism industry before and during the Covid-19 pandemic. A five-point Likert scale analysis was done and their results are discussed below.



Table 5.1: Likert Scale Responses on various dimensions of Business in Travel and Tourism (Frequency)

Various Dimensions of Business	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
You maintain contact with the clients via online	0	1	11	24	14
You face a shortage of staff during Covid-19	0	4	3	30	13
Govt aid is required in the Travel and Tourism Industry to cope with the current situation	0	1	2	18	29
The travel and tourism industry can reopen with full precautions against Covid 19	0	2	7	29	12
The present precautions and safety measures are appropriate for the Travel and Tourism Industry which are opened in non-containment zones	0	6	9	25	10
Conducting meetings through online mode has affected your business	0	6	9	23	12
You have planned to reschedule customer visits post lockdown	0	6	12	24	8
The customers or tourists have a fear or hesitation to the services provided during covid-19	1	1	4	27	17
Travel needs of employees were met during Covid-19	0	16	12	19	3
Work from home option is available to employees	0	13	5	21	11

Interpretation of the Likert Scale table in percentage terms

Concerning the respondent's opinion regarding contacting their clients online during this pandemic crisis, the study observes that 76% of the respondents either agree or strongly agree while 22% hold a neutral stand. Only a meager 2 % disagree with this opinion. Concerning the experience of respondents regarding a shortage of staff during the Covid Pandemic, 86% of the respondents either agree or strongly agree to this aspect, 6% remain neutral while 8 % do not experience any sort of shortage of staff during these times. Concerning the respondent's opinion regarding government aid, 94% of the respondents either agree or strongly agree with government aid during these unprecedented times of calamity. Only a negligible 2% decline in any sort of government aid.

Concerning the respondent's expectation regarding reopening of the travel and tourism industry with full precautions, 82 % of the respondents either agree or strongly agree while only 4% express a pessimistic attitude towards reopening and regarding the appropriateness of present precautions existing in the industry, 70% either agree or strongly agree while 12 % exhibit disagreement.

70% of the respondents either agree or strongly agree that conducting a meeting with their clients online has affected their business and 88% of the respondents either agree or strongly agree that customers of the tourism and travel industry face apprehensions regarding the services provided during the Covid pandemic.

It is evident from the analysis that only 44 % of the respondents met the travel needs of their employees during the Covid pandemic while 32 % decline and 24% remain neutral regarding this aspect. 64% of the respondents agreed their employees to work from home while 26% objected to this during the Covid pandemic.

5.2. Wilcoxon Test on average quarterly turnover before and during Lockdown

A Wilcoxon test was conducted to test the first hypothesis as the two related variables are in ordinal form using a scale from 1 to 3 where 1 represents an average quarterly turnover below 1 lakh, 2 represents average quarterly turnover between 1 lakh and 5 lakh and 3 represents average quarterly turnover above 5 lakhs. The responses were subjected to SPSS tests and the results are as follows.



Null Hypothesis: The Median difference between Average quarterly turnover (before lockdown) and

average quarterly turnover (during lockdown) equals zero.

	Sample Size	Mean	Std.Deviation
Average quarterly Turn over (Before lockdown)	50	2.44	.644
Average quarterly Turn over (during lockdown)	50	1.30	.505

The mean value of 2.44 before lockdown implies that average turnover was rather high almost nearing 5 lakh while the mean value of 1.3 implies a rather low turnover almost close to 1 lakh during the

Covid pandemic lockdown. Dispersion is slightly higher before lockdown than during the lockdown.

Negative Ranks	Positive Ranks	Ties
38	0	12

Negative Ranks imply that there are 38 cases where the Average quarterly Turnover (during lockdown) is less than the Average quarterly Turnover (Before lockdown). There are zero cases where the Average quarterly Turnover (during lockdown) is greater than the Average quarterly Turnover (Before lockdown). There are 12 cases where the Average quarterly Turnover (during lockdown) is equal to the average quarterly Turnover (Before lockdown).

Test Statistics

Wilcoxon Signed Ranks Test was conducted to test whether there was any significant change in average quarterly turnover during the lockdown compared to the period before lockdown. The test statistics revealed a statistically significant negative change in average quarterly turnover, $Z = -5.542$, $p = .000$ with a large effect size of -0.55 .

Z	P-value	Effect Size
-5.542	.000	-0.55

5.3. Wilcoxon Test on Average Occupancy Rate before and during lockdown

A Wilcoxon test was conducted to test the second hypothesis as the two related variables were in ordinal form using a scale from 1 to 4 where 1 represented an average occupancy rate between 0-20%, 2 represented average occupancy rate between 20-40 % and 3 represented average occupancy rate

between 40-60% and 4 represented average occupancy rate above 60%. The responses were subjected to SPSS tests and the results are as follows. Null Hypothesis: The Median difference between average occupancy rate (before lockdown) and average occupancy rate (during lockdown) equals zero.

	Sample Size	Mean	Std.Deviation
Average occupancy rate (Before lockdown)	50	2.96	.755
Average occupancy rate (during lockdown)	50	1.90	.839

The mean value of 2.96 before lockdown implies that the average occupancy rate was rather

high almost nearing 40-60% while the mean value of 1.9 corresponding to the lockdown period implies a



rather low average occupancy rate almost close to 20-40%. Dispersion is slightly higher during the

lockdown than before the lockdown.

Ranks

Table 5.3.2: Ranks		
Negative Ranks	Positive Ranks	Ties
37	6	7

Negative Ranks imply that there are 37 cases where the Average occupancy rate (during lockdown) was less than the average occupancy rate (Before lockdown). There are 6 cases where the Average occupancy rate (during lockdown) was greater than the average occupancy rate (Before lockdown). There are 7 cases where the Average occupancy rate (during lockdown) was equal to the average occupancy rate (Before lockdown).

Test Statistics

Wilcoxon Signed Ranks Test was conducted to test whether there was any significant change in average occupancy rate during the lockdown compared to the period before lockdown. The test statistics revealed a statistically significant negative change in average occupancy rate, $Z = -4.697$, $p = .000$ with a large effect size of -0.47 .

Table 5.3.3: Test Statistics		
Z	P-value	Effect Size
-4.697	.000	-0.55

5.4. Chi-Square Test on Type of Organization * Average quarterly turnover (before lockdown)

A Chi-Square test was conducted to measure the association between the type of organization and average quarterly turnover before the lockdown. Three types of organizations were considered under the study such as Private company, Sole

proprietorship, and Partnership Company. The responses were subjected to the Chi-Square test using SPSS and the resultant output of the same is given below.

Null Hypothesis: There is no significant association between the type of organization and average quarterly turnover (before lockdown).

Table 5.4.1: Test Statistics			
	Value	Degree of Freedom	P-value
Likelihood Ratio	.749	4	.945

From the resulting output, since the p-value was greater than 0.05, we failed to reject the null hypothesis and there was no significant association between types of organization and the average quarterly turnover before lockdown. Likelihood ratio $(4, N=50) = .749$, $p = .945$.

The assumption of the Chi-Square test was violated with 3 cells (33%) had an expected count of less than 5. Hence likelihood ratio was used instead of Pearson Chi-Square.

5.5. Chi-Square Test on Type of Organization * Average quarterly turnover (during lockdown)

A Chi-Square test was conducted to measure the association between the type of organization and average quarterly turnover during the lockdown. The responses were subjected to the Chi-Square test using SPSS and the resultant output of the same is given below.

Null Hypothesis: There is no significant association between the types of organization and average quarterly turnover (during lockdown).

Table 5.5.1: Test Statistics			
	Value	Degree of Freedom	P-value
Likelihood Ratio	2.534	4	.639

From the resulting output, since the p-value is greater than 0.05, it was evident that there was no significant association between types of organization and the average quarterly turnover during the

lockdown. Likelihood ratio $(4, N=50) = 2.534$, $p = .639$.

The assumption of the Chi-Square test was violated with 5 cells (55.6 %) had an expected count



of less than 5. Hence likelihood ratio was used instead of Pearson Chi-Square.

5.6. Chi-Square Test on Area of Operation * Average quarterly turnover (before lockdown)

A Chi-Square test was conducted to measure the association between the area of operation and

average quarterly turnover during the lockdown. The study considered three areas of operation such as domestic, international, and both. The responses were subjected to the Chi-Square test using SPSS and the resultant output of the same is given below.

Null Hypothesis: There is no significant association between the areas of operation and average quarterly turnover (before lockdown).

	Value	Degree of Freedom	P-value
Likelihood Ratio	5.142	4	.273

From the resulting output, it was evident that there was no significant association between areas of operation and the average quarterly turnover before lockdown. Likelihood ratio (4,N=50) = 5.142, p = .273.

The assumption of the Chi-Square test was violated with 5 cells (55.6 %) had an expected count of less than 5. Hence likelihood ratio was used instead of Pearson Chi-Square.

5.7. Chi-Square Test on Area of Operation * Average quarterly turnover (during lockdown)

A Chi-Square test was conducted to measure the association between the areas of operation and average quarterly turnover during the lockdown. The responses were subjected to the Chi-Square test using SPSS and the resultant output of the same is given below.

Null Hypothesis: There is no significant association between the area of operation and average quarterly turnover (during lockdown).

	Value	Degree of Freedom	P-value
Likelihood Ratio	4.723	4	.317

From the resulting output, it was evident that there was no significant association between areas of operation and the average quarterly turnover during the lockdown. Likelihood ratio (4,N=50) = 4.723, p = .317.

The assumption of the Chi-Square test was violated with 6 cells (66.7 %) had an expected count of less than 5. Hence likelihood ratio was used instead of Pearson Chi-Square.

6. CONCLUSION

It can be inferred from the statistical analysis and interpretation of the above facts that lockdown due to the Covid pandemic have significant and enduring negative impacts on the business prospects of stakeholders in the travel and tourism industry. Though the stakeholders take into account all the threatening aspects of the present pandemic, they strongly argue for stringent precautionary measures and at the same time demand urgent government interventions in making a resurgence of the travel and tourism industry, which is the backbone of Kerala economy. The business stakeholders in the industry are facing various crises such as inability to pay their creditors, difficulty in meeting cash flow commitments, non-payment or delayed payments by

the debtors, and insurance issues. Large negative effects of lockdown on average turnover and occupancy rate of travel and tourism industry evident from the study point towards the urgency of various remedial measures from the government in the forms of tax concessions, tax holidays, government grants, moratorium of loans.

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