

COVID-19 Effect on Tourism: Measuring Guest Behavior towards Hotel Industry Using Ordered Logistic Regression

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Abstract

The global COVID-19 pandemic significantly impacted the Nepalese hotel industry due to government-imposed lockdowns and travel restrictions. This led to decreased earnings, higher unemployment, and a noticeable shift in guest behavior. In this context, the study analyzes the impact of COVID-19 on guest behavior towards the hotel industry in the Kathmandu Valley. This study utilizes an explanatory research design and gathers data from 260 participants through structured questionnaires, administered with the assistance of the KOBO Toolbox within the Kathmandu Valley. Inferential analysis was conducted using an ordered logistic model. The findings indicate that the pandemic has indeed had an impact on guest behavior within the hotel industry. Additionally, factors such as gender, education level, profession, reference group, security, attitude, and beliefs play a significant role in shaping guest behavior toward the hotel industry. We also find that most individuals visit hotels for personal reasons, and guests generally have a moderate level of awareness regarding COVID-19. In conclusion, hotels should enhance their services and maintain a hygienic environment to address these issues. In this regard, this study will benefit researchers, the hotel industry, the travel and tourism sector, policymakers, marketing agencies, and more.

Keywords: COVID-19, Consumer/Guest Behavior, Hotel Industry, Ordered Logistic Model
JEL Code: L83, C21, C52, I15

1. INTRODUCTION

Consumer behavior, influenced by psychological, social, personal, and economic factors (Kakkar et al., 2020), has evolved significantly over time. Earlier research in consumer motivation was prevalent in the 1920s, '30s, and '40s, with a focus on advertising and psychology (Songkroh, 2019). Since the 1950s, marketers have shifted their emphasis from economics to behavioral sciences such as sociology, anthropology, and clinical psychology. The tourism industry, a major economic driver in numerous countries, has attracted significant research attention (Kyrylov et al., 2020; Devkota et al., 2020; Kharel et al., 2022). Hotels, competing fiercely for customers, strive to provide clean and inviting environments (Tan et al., 2020; Paudel et al., 2021). Some, like all-inclusive hotels and hostels, aim to create a sense of community (Khudiyev & Szabó, 2020; Songkroh, 2019; Devkota et al., 2023). In unique cases like Caravans, glamping has introduced igloo lodging (Kim et al., 2020). However, the demand for tourism services in Europe is on the rise, highlighting emerging adventure tourism markets in countries like Russia, Israel, Poland, the Republic of Korea, Chile, and Romania (Popov et al., 2016).

The hotel management business has grown significantly in many countries, with factors like high-quality food and beverage, reception, housekeeping, and competence driving growth (Choi & Choi, 2021). Hotels not only provide lodging for foreigners but also contribute positively to national budgets. For instance, in Japan, outbound international tourism saw rapid growth in the 1980s, with the U.S. being a prominent destination for Japanese tourists (Ahmed & Krohn, 1993). However, the COVID-19 pandemic has caused a sharp decline in tourism in some regions, such as Sri Lanka, where visitor arrivals have fallen by 30 percent (Maryati, 2020). The pandemic's economic impact has been substantial, with Sri Lanka's tourist earnings projected to decrease significantly (Chenli et al., 2021). Consumer behavior in travel and hospitality has shifted due to COVID-19, with consumers concerned about health risks and lockdown measures (Nigar & Miah, 2020). In contrast, the Vietnamese tourist industry has experienced growth, contributing significantly to the country's GDP (Minh et al., 2015).

However, the global COVID-19 pandemic has had a profound impact on the tourism and hotel industries, posing risks to the health and lives of millions (Jafari et al., 2020). Travel restrictions, implemented in response to rising COVID-19 cases, have severely affected global tourism (Shapoval et al., 2021). Consumer behavior in travel and tourism has been altered by COVID-19 (Sayyida et al., 2021; Devkota et al., 2022). Concerns about contracting the virus have deterred consumers from traveling or staying in hotels (Bashir et al., 2019). Furthermore, the pandemic has placed unprecedented

challenges on the hotel industry, resulting in significant economic repercussions worldwide (Gursoy & Chi, 2020).

Consumer behavior has been shaped by lockdowns, quarantine measures, and infection fears, influencing both psychological and physical aspects (Devkota et al., 2022). Researchers are exploring various aspects of this changing behavior, considering government restrictions, safety concerns, and social distancing (Devkota et al., 2023a). The pandemic has led to a decline in consumer travel and a closure of tourist destinations (Laato et al., 2020). Hotel managers must understand these dynamics to create effective environmental management programs that benefit both consumers and hotels. During the pandemic, guest behavior in hotels has also changed, impacting room utilization, food and beverage consumption, and concerns about cleanliness, health, and security (Tinus et al., 2020).

Nepal, as a developing country, attracts a substantial number of tourists each year, with a continuous flow of visitors to its hotels throughout the seasons (Devkota et al., 2020). Factors like brand image, loyalty, and perceived quality affect customers' opinions of brand equity in Nepal's star hotels (Maharjan et al., 2022). Hotel location is a significant factor for consumers when selecting accommodation (Gautam et al., 2022; Devkota et al., 2022a). Nepal boasts 1,254 registered hotels, contributing 14.37 percent to the country's GDP, according to the Central Bureau of Statistics (Ulak, 2020). Customer satisfaction is crucial in the hotel industry, with changing customer expectations driven by lifestyle changes (Pazir & Amin, 2015). Future research could explore additional variables influencing consumer visiting intentions and examine external factors with a larger respondent pool (Goeltom et al., 2019). The COVID-19 crisis requires further research, particularly in the recovery phase, and future studies may compare strategies among different hotel categories like boutique hotels and resorts (Lai & Wong, 2020).

The research outlined here leaves several questions unanswered: How do we measure guest awareness of COVID-19? What factors influence guest behavior in the hotel industry during COVID-19? What challenges do guests face in the hotel industry due to COVID-19? What recommendations can specialists in the hotel industry provide for improving services after COVID-19? To address these questions and explore the impact of COVID-19 on guest behavior in the Kathmandu Valley's hotel industry, a thorough analysis is required. The purpose of this research is to answer the questions comprehensively.

2. RESEARCH METHODS

2.1 Theoretical Framework

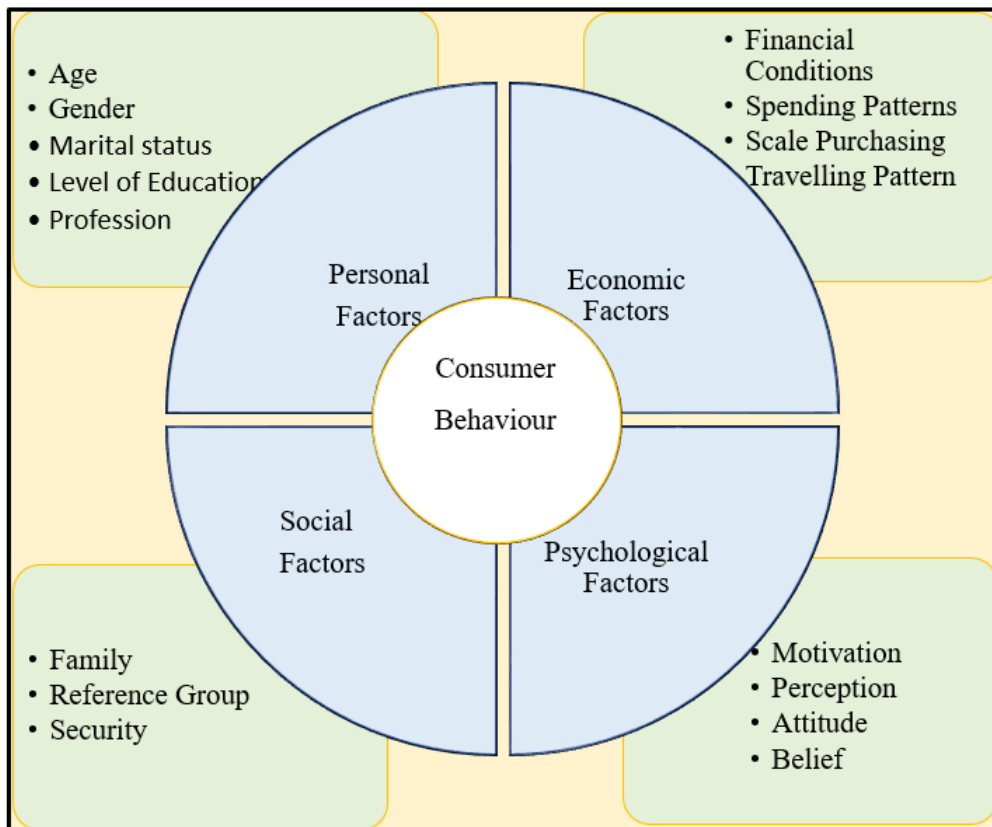
This study draws upon various theories, including the Stimulus-Organism-Response (SOR) theory, Fundamental Interpersonal Relationship Orientation (FIRO) theory, Theory of Planned Behavior, Theory of Travel Behavior, Hierarchy of Needs theory, Customer Satisfaction theory, Theory of Travel Decision Making, and Social Exchange Theory (Mim & Ferdous, 2020; Özel & Kozak, 2017). The SOR theory explains that external stimuli influence an individual's psychological state, affecting their internal emotions and psychological processes (Pandita et al., 2021). The FIRO theory assesses consumer interpersonal relationships (Nikou & Khaiabani, 2020). The Theory of Planned Behavior considers three belief types—behavioral beliefs, normative beliefs, and control beliefs—which influence attitudes toward behavior, subjective norms, and perceived behavioral control, ultimately shaping behavioral intentions (Yarimoglu & Gunay, 2020).

The Hierarchy of Needs theory, based on Maslow's model, is frequently used in hospitality to understand consumer motivations, categorizing needs into physiological, safety, love, esteem, and self-actualization (Fallatah & Syed, 2018). Travel behavior pertains to how individuals schedule activities, with a focus on identifying unique factors defining tourist preferences (Lopez & Wong, 2019). Customer Satisfaction theory combines customer expectations with product or service performance to measure satisfaction (Mim & Ferdous, 2020). Social Exchange Theory, on the other hand, posits that parties in an exchange relationship feel obligated to reciprocate benefits received, even when terms and duration are unspecified (Atadil & Lu, 2021; Song et al., 2021).

In this study, the Customer Satisfaction theory takes precedence. It highlights that service quality in the hotel sector directly affects customer satisfaction, with consumer happiness linked to perceptions of value and expectations. This theory aids in understanding customer wants and expectations by considering how products or services are presented in relation to customer expectations. Figure 1 above illustrates the diverse factors influencing consumer behavior in the hotel industry, encompassing personal, economic, social, and psychological dimensions. Personal factors, which are unique to individuals, include decision-making processes, habits, and perspectives, and greatly affect consumer behavior (Khuong & Duyen, 2016). Key personal factors such as age, gender, marital status, education level, and profession significantly influence consumer behavior in the hotel industry (Gajjar, 2013).

Economic factors also play a pivotal role in shaping consumer behavior toward the hotel industry, as travel decisions are closely tied to a consumer’s financial situation (Ramya & Ali, 2016). Factors such as financial condition, spending patterns, purchasing scale, and travel habits all impact consumer choices within the hotel industry. Social factors, including family, reference groups, and security, have a positive influence on consumer attitudes and decisions in the hotel industry, with family dynamics and structure playing a crucial role (Halabi et al., 2013). Psychological factors, encompassing motivation, perception, beliefs, and attitudes, significantly impact consumer behavior in the hotel industry, particularly during the pandemic (Rabiul et al., 2021). In summary, consumer behavior within the hotel industry is shaped by personal, economic, social, and psychological factors. These factors collectively drive consumer choices and attitudes in the hotel sector.

Figure 1: Conceptual Framework



Source: Adapted and Modified from Kakkar et al. (2020)

2.2 Ordered Logistic Model

Ordered logistic was used to analyze the impact of COVID 19 on guest behaviour towards hotel industry in Kathmandu valley. Balarabe et al. (2018) in ordered logistic outcome response has some order and is coded 0, 1 and 2 indicate the consumer behaviour. Suppose the likelihood of being in awareness level was described by ordered logistic model as:

$$\Pr(Y = C/X_i) = F(X_i\beta) \quad (1)$$

Where Y is the output obtained for the level of awareness, which is coded as 0 = less aware, 1 = moderately aware, and 2 = Highly aware; standard logistic cumulative function is denoted by F, and the set of independent variables is referred to as X. 16 independent variables were used to estimate the ordered logistic model with the help of the following formula for this study:

$$P(Y_i > j) = \frac{\exp(X_i\beta - K_j)}{1 + [\exp(X_i\beta - K_j)]}, j = 1, 2, \dots, M - 1, \text{ which implies}$$

$$P(Y_i = 1) = 1 - \frac{\exp(X_i\beta - K_1)}{1 + [\exp(X_i\beta - K_1)]} \quad (2)$$

$$P(Y_i = j) = \frac{\exp(X_i\beta - K_{j-1})}{1 + [\exp(X_i\beta - K_{j-1})]} - \frac{\exp(X_i\beta - K_j)}{1 + [\exp(X_i\beta - K_j)]}, j = 1, 2, \dots, M - 1, \text{ implying}$$

$$P(Y_i = M) = \frac{\exp(X_i\beta - K_{M-1})}{1 + [\exp(X_i\beta - K_{M-1})]} \quad (3)$$

In the case of M=2, these equations simplify to:

$$P(Y = 0) = \frac{1}{1 + \exp(Z_i - K_1)} \quad (4)$$

$$P(Y = 1) = \frac{1}{1 + \exp(Z_i - K_2)} - \frac{1}{1 + \exp(Z_i - K_1)} \quad (5)$$

According to Williams (2016), the ordered logistic model can be used to estimate the probability that the unobserved variable Y^* falls within the various threshold limits using the value of Z and the assumed logistic distribution of the disturbance term. For our study, it is to analyzing the impact of COVID-19 on consumer behaviour towards hotel industry in Kathmandu valley.

The empirical specification of equation I as seen above can be seen in equation 6, which can be presented as:

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon$$

Further it can be presented as:

$$Y = \alpha_0 + \beta_1 \text{age} + \beta_2 \text{gender} + \beta_3 \text{maritalstatus} + \beta_4 \text{levelofeducation} + \beta_5 \text{profession} + \beta_6 \text{financialconditions} + \beta_7 \text{spendingpattern} + \beta_8 \text{scalepurchasing} + \beta_9 \text{travellingpattern} + \beta_{10} \text{referencegroup} + \beta_{11} \text{family} + \beta_{12} \text{security} + \beta_{13} \text{motivation} + \beta_{14} \text{perception} + \beta_{15} \text{attitudes} + \beta_{16} \text{beliefs} + \varepsilon$$

Where,

Y = Awareness level (i= 0, 1, 2)

X = Independent variables (Independent variables are explained in detail in table 4)

ε = Error terms (Devkota et al., 2021)

2.3 Defining Variables

The section construct related to the study and its variables are defined. Appropriate values for each variable are defined as changed variable hold different value. Though, the variables listed beneath may not be the only variables used in this study and necessary variables are taken as per the essential of the study.

Table 1: Variables and Expected Signs of Variables

Variables	Description	Value	Expected Sign
Consumer behaviour	Behaviour of visitors	Ordinal scale (0,1&2)	±
Personal Factors			
Age	Visitor’s age	Years	±
Gender	Visitor’s gender	1 = Male, 0 = Otherwise	±
Profession	Nature of job	1 =Private service sectors, 0 = Otherwise	±
Marital Status	Visitor’s marital status	1 = Married, 0 = Otherwise	±
Level of education	Visitor’s level of education	1 = Above Bachelor Degree, 0 = Below Bachelor Degree	±

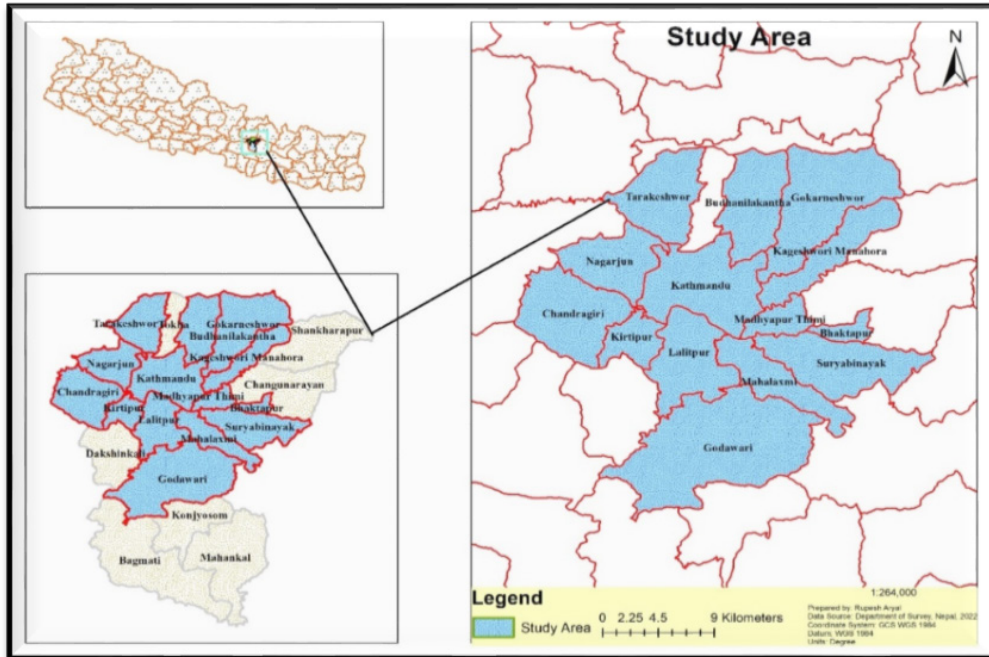
Social Factors			
Family	Visitor's family structure	1= Nuclear Family, 0= Otherwise	±
Reference Group	Group of people who strongly influence a person's attitudes values and behaviour directly or indirectly	1 = Reference group, 0 = Otherwise	±
Security	Potential harm caused by others	1 = Yes, 0 = Otherwise	±
Economic Factors			
Financial Condition	Respondent's financial condition	1 = Yes, 0 = Otherwise	±
Spending power	Spending pattern of respondents	1 = Yes, 0 = Otherwise	±
Scale of purchasing	Purchasing habit during travel of respondents	1 = Yes, 0 = Otherwise	±
Traveling Pattern	Travelling behaviour of respondents	1 = Yes, 0 = Otherwise	±
Psychological Factors			
Motivation	Driving force of Satisfaction	1 = Yes, 0 = Otherwise	±
Perception	Visitor's way of thinking about particular things	1 = Yes, 0 = Otherwise	±
Attitude	Visitor's attitude towards hotel service	1 = Yes, 0 = Otherwise	±

2.4 Study Area and Study Population

Kathmandu valley in Nepal has been chosen as the study area. Nepal has 77 districts, and 3 districts in Kathmandu valley (Kathmandu, Bhaktapur, and Lalitpur) in Bagmati Province were chosen as the research area. Kathmandu valley is located at latitudes 27°32'13" and 27°49'10" north, and longitudes 85°11'31" and 85°31'38" east, and is almost round in shape, with a diameter of approximately 30 km E-W and 25 km N-S (Rajbhandari et al., 2022). The valley is about 900 km² in size and has a central flat area at an elevation of 1,300–1,400 meters above sea level (Pant, 2011). Kathmandu valley (see figure 2) was suitable area for research because it has a largest population and many hotels as compared to other areas of Nepal. Being the capital city of Nepal and one of the only regions which accumulates highest concentration of population, conducting a research on consumer behaviour towards hotel industry in Kathmandu

valley gives better and more factual results. The present study will identify the visitor's behaviour towards hotel industry while visiting the hotel during the time of pandemic in Kathmandu valley.

Figure 2: Study Area



Source: GIS

2.5 Sampling Technique, Data Analysis Technique and Sample Size Determination

Since, guests are diversified in location and geographical region. Therefore, this study adopts non-probability sampling technique to select sample population. Following convenient sampling technique total 260 guests were interviewed with structured questionnaire; where data collection is done by using KOBO Toolbox through both online and offline methods. In data analysis, a pilot survey was conducted to 14 respondents after the questionnaire was entered into the KOBO toolbox to make sure of the checklist consistency and accuracy. Data analysis was performed through following procedure with the help of descriptive analysis, and inferential analysis. Additionally, Ordered Logistic Model is use to see guest behaviour towards hotel industry in Kathmandu valley using STATA software.

Sample size determination is the method for choosing the number of observation for the research. Sughra et al. (2021) indicates the formula to calculate the sample size that is required for any study: $n = z^2pq/e^2$, Where, n_0 = sample size required for study, Standard tabulated value for 5% level of significance (z) = 1.96, p is prevalence or proportion of an event 50 % (Idowu et al., 2020), Allowable error that can be tolerated (e) is 6%. Total population for this study is 266.78. However, this study added 5% non-response error. Thus, sample size taken for study is 280. Hence, this study is based upon the 280 respondents residing in Kathmandu valley but due to COVID 19 outbreak only 260 sample size was collected. Hereby, the data collection time periods were 10th February 2022 to 10th March 2022.

3. RESULTS

3.1 Socio-Demographic Characteristics

Under socio-demographic analysis general information about the surveyed hotel guest are covered. Various factors such as age, gender, marital status, level of education, profession, employment status, purpose of visit and duration of stay at hotel were analyzed (see table 2).

Table 2: Socio-demographic Characteristics

Variable	Category	In Number	In Percentage
Age	Below 25	56	21.54
	26 - 30	62	23.85
	31 - 35	57	21.92
	36 - 40	32	12.31
	41 - 45	18	6.92
	46 Above	35	13.46
Gender	Male	150	57.69
	Female	110	42.31
Marital Status	Married	163	62.69
	Unmarried	97	37.31
Types of Family	Joint	136	52.31
	Nuclear	123	47.31
Education Level	Secondary	10	3.85
	Higher Secondary	46	17.69
	Bachelor's Level	131	50.38
	Master's and Above	73	28.08

Profession	Private service sector	149	57.31
	Business Person	29	11.15
	Government Official	20	7.69
	NGO/INGO Staff	16	6.15
	Others	44	16.92
Employment Status	Full Time	207	79.62
	Part Time	14	5.38
	Unemployed	39	15

Table 2 reveals that most respondents who visited hotels during the pandemic were young males (57.69%) employed in the corporate sector, typically single. They primarily had secondary to bachelor's level education (71.89%) and hailed from age group 26-30 (23.85%). Married individuals constituted 62.69% of the respondents, with joint families (52.31%) being more prevalent than nuclear ones (47.31%). Private service sector employment was predominant (57.31%). Most visits were for personal reasons (50.39%), followed by official visits (12.69%), and the typical stay duration was 2 days (34.62%).

These findings align with previous research. Kakkar et al. (2020) observed a similar youth-focused trend, with education being an influential factor in guest behavior. Gender disparities also play a role, as noted by Wang et al. (2018), impacting control over visiting and support for the hotel industry. Marital status and employment sectors have previously been associated with hotel visits, as indicated by Bang (2015) and Yang and Cai (2016). Moreover, the purpose of visits and stay duration closely resembles findings Tsai et al. (2020). In sum, socio-demographic characteristics significantly shape guest behavior.

3.2 Guest Awareness Level

This study intends to measure awareness level by using 20 questions (table 3) that contain yes and no as response options to respondents, where questions regarding the awareness level of COVID-19 are kept forward so that the researcher can be aware of a hotel visitor. As a result, if an individual answers yes to more than 75% of the questions, they are said to be highly aware of COVID 19. Similarly, if respondents answer less than 50% no, it is possible that they are less aware of COVID 19.

The general form of identifying a consumer's awareness level of COVID 19 is as follows:

$$Y (\text{Awareness}) = \begin{cases} Y = 0, & \text{If Scale Score} < 50\% \\ Y = 1, & \text{If } 50\% < \text{Scale Score} < 75\% \\ Y = 2, & \text{If Scale Score} > 75\% \end{cases}$$

Table 3: Guest Awareness Level

S.N	Questions	Yes		No	
		No.	(%)	No.	(%)
	Are you aware about the cause of COVID-19 disease is virus and is transmitted through close contact?	259	99.62	1	0.38
	Are you aware about the cause of COVID – 19 is to be an air borne disease?	247	95	13	5
	Do you believed taking precautionary measure like using face mask, hand sanitizer, hand gloves and maintaining social distance prevent the spread of COVID 19?	259	99.62	1	0.38
	Will you give attention towards other guests activates surrounding you?	138	53.08	122	46.92
	Do you shake hands with friends, guests, or people you meet at a meeting during the pandemic?	219	15.77	41	84.23
	Have you washed your hand regularly and thoroughly with soap and water at least 20 second?	138	46.92	122	53.08
	Have you taken hot water regularly?	148	56.92	112	43.08
	Will you check hygiene and cleanliness of hotel room?	256	98.46	4	1.54
	Do you follow the regular updates provided by the government during your visit?	155	59.62	105	40.38
	Are your choices of lodging affected due to the high risk of COVID-19?	212	81.54	48	18.46
	Do you seek a less crowded/open-space hotel room while you are visiting?	249	95.77	11	4.23
	Do you seek online booking/payment system that avoid your physical contact with hotel personal?	224	86.15	36	13.85
	Is hotel where you're staying equipped with a lift or elevator?	36	13.85	224	86.15
	Is there a room dining service available during COVID-19?	194	74.62	66	25.38
	Is there an e-signature option at hotel where you're staying?	34	13.08	226	86.92
	Is there a room cleaning service in hotel where you're staying during the pandemic?	246	94.62	14	5.38

	Is the hotel you're staying at equipped with a phone/digital ordering system for meal service?	207	79.62	53	20.38
	Does the security of the hotel area affect your decision-making during a pandemic?	227	87.37	33	12.69
	Is it true that a location's reputation influences hotel selections?	228	87.69	32	12.31
	Is it possible that hotel prices are influencing your decision-making?	217	83.46	43	16.54

Source: Field Study

This study discovered that 44.23% of respondents are highly aware, 53.85% of respondents are moderately and 1.92% of the respondents are less aware of COVID-19 during their visit. Therefore, this study indicates that respondents were moderately aware about pandemic. Likewise, Alahdal et al. (2020) found that 58% of people are aware of COVID-19. It indicates that both surveys have similar findings indicating that guests are moderately aware of COVID-19.

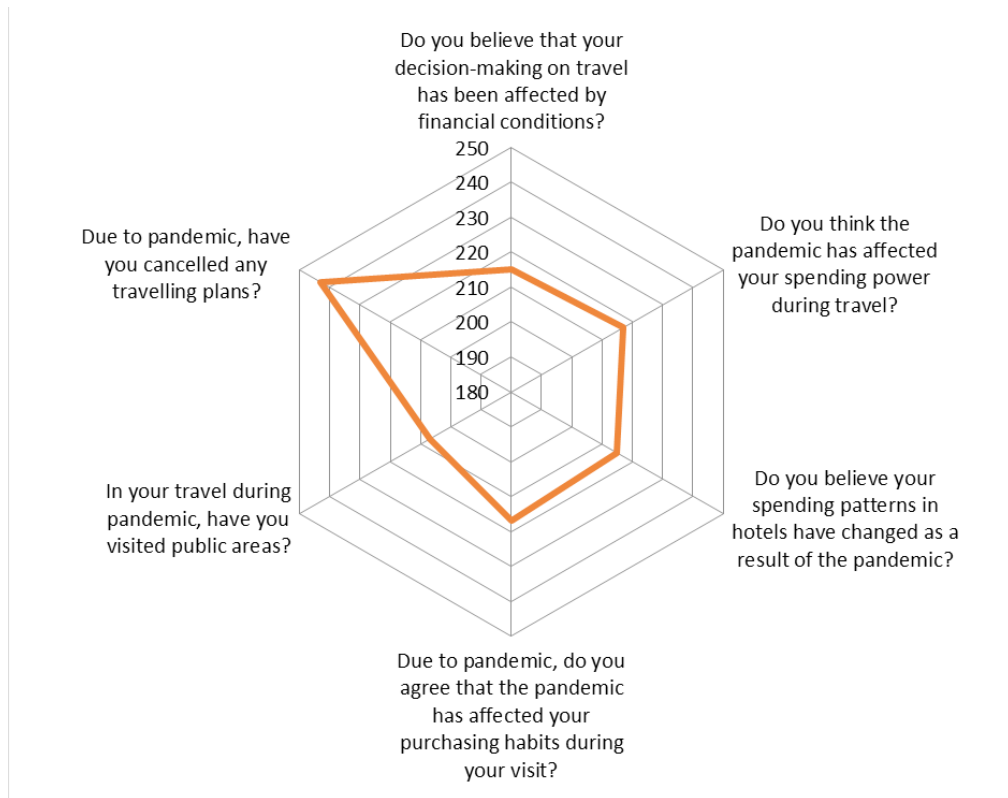
3.3 Factors Influencing Guest Behaviour in Hotel Industry During COVID 19

This section deals with the factors influencing guest behaviour in hotel industry during COVID 19 in Kathmandu valley under personal factors, economic factors, socio factors and psychological factors.

Economic Factors

Financial condition has a significant impact on the consumer's behaviour while visiting a hotel. If they have a strong financial condition, they should visit hotel often, which maximizes the positive impact on hotel industry. If they have a poor financial condition, they should minimize the visiting pattern, which minimizes the negative impact on hotel industry (Mtapuri et al., 2022).

Figure 3: Economic Factors



Source: Field Study

Figure 3 shows that, traveling plans and decisions are highly affected by economic factors such as financial condition of the visitors (82.69%), spending power (83.46%), spending pattern (82.69%) and purchasing habit (83.46%) during COVID-19 while traveling. However, this study also shows that 79.32% of respondents visited the public areas and insists that 93.46% of respondents had cancelled their travel plans due to the COVID-19 outbreak and the lockdown. In addition, Kakkar et al. (2020) on their study also found that economic factors affects the traveling decision where people had adjusted their spending habits, and avoided large-scale purchases, avoided going to public places which lead to cancelling their vacation plans and postponed them, respectively.

Social and Psychological Factors

Social factors encompass reference groups, family, and security. This study reveals that hotel selection is often influenced by reference groups (40.77%), with colleagues being a common reference (30.38%). Security is a significant factor, with 73.08% considering it in their choice, encompassing personal safety, theft prevention, virus control, emergency health facilities, data security, and hotel hygiene. Therefore, hoteliers should prioritize security as both respondent groups ranked it as the top attribute (Park & Lehto, 2021). Weak security measures deter guests, emphasizing the need for strengthened security.

Psychological factors, including motivation, perception, attitude, and beliefs, also impact guest behavior. Table 4 demonstrates that operating procedures (69.62%), the risk of COVID-19 transmission (77.69%), guest limitations (60.38%), and health concerns (50.15%) affect guest behavior. Visitors often opt for guest houses/lodges (43.46%), followed by resorts (38.08%). This aligns with Rahman et al.'s (2021) findings, highlighting how the COVID-19 outbreak has significantly influenced travel decisions, hygiene perceptions, and safety concerns. Guests trust hotels with their operating procedures, considering infection risk when choosing lodging, and their thoughts and sentiments shape their travel choices (Di Crosta et al., 2021).

Table 4: Psychological Factors

Psychological Factors	Yes		No	
	Number	Percentage	Number	Percentage
Do you trust the operating procedures (on services and facilities) adopted by your hotel to help you prevent COVID-19 transmission?	181	69.62	79	30.38
Due to high risk involved with the spreading of infection, do you think it affected your choice of lodging?	202	77.69%	58	22.31%
Was there any restriction on the number of guests in hotel you are currently staying at?	157	60.38%	103	39.62%
Have you felt any threat to your health while staying in hotels (any hotel you used) during a pandemic?	146	56.15%	114	43.85%

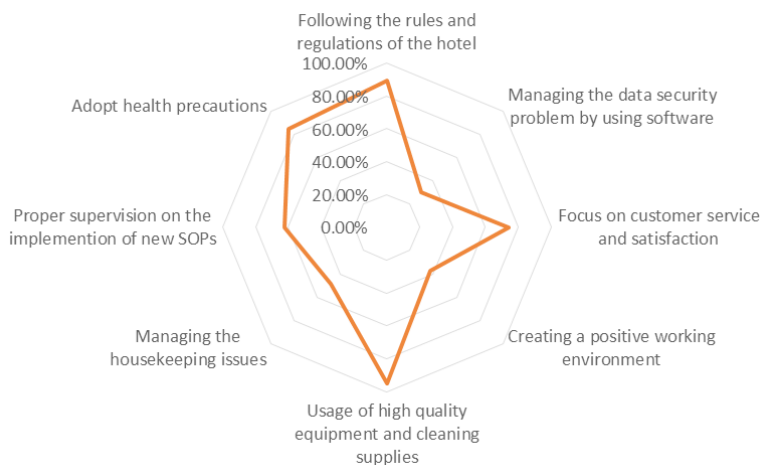
Source: Field Study

3.4 Challenges Faced by Guests and Managerial Solutions to improve Hotel Industries

This section addresses challenges faced by hotel guests during COVID-19 and offers managerial insights to enhance the hotel industry in Kathmandu Valley. Findings reveal that most respondents (70.38%) encountered difficulties during their hotel visits, primarily attributed to hotel management (86.34%), followed by hotel staff (84.15%) and hotel policies (71.58%). These issues encompassed closed amenities (75.38%), unexpected charges (20.77%), housekeeping problems (57.31%), data security (45.38%), air quality (59.62%), lack of entertainment options (37.69%), and guest behavior issues (46.92%).

Notably, health safety concerns were predominant among guests during the pandemic, emphasizing the need for heightened awareness during travel. However, the study indicates that these issues can be resolved (97.69%), with various stakeholders playing crucial roles, including hotel managers (83.08%), government (64.49%), hotel staff (74.68%), and IT managers (43.38%). Figure 3 presents suggestions for improving hotel services during COVID-19, including the use of high-quality cleaning supplies (94.88%), adherence to hotel rules and regulations (89.37%), implementation of health precautions (85.04%), customer service and satisfaction (74.02%), rigorous supervision of new SOPs (62.60%), addressing housekeeping issues (48.43%), fostering a positive work environment (37.40%), and managing data security through software solutions (29.92%) to tackle challenges in the hotel industry.

Figure 4: Suggestion to improve the services of hotels in line with COVID-19



Source: Field Study

3.5 Logistic Regression Analysis

The ordered logistic regression in table 5 shows the significance between the dependent variable which is consumer behaviour and independent variables like age, gender, marital status, level of education, profession, financial condition, spending pattern, scale purchasing, travelling pattern, family, reference group, security, motivation, perception, attitude and beliefs. However, the ordered logistic model can be analyzed by three processes, coefficient, odd ratio, and marginal effect.

Table 5: Ordered Logistic Regression

VARIABLES	(1) Logit coeff	(2) Odds ratio	(3) Marginal effects
Visitors perception			
ageyear	0.0117 (0.0193)	1.012 (0.0195)	-0.000209 (0.000356)
gender	-0.606** (0.281)	0.546** (0.153)	0.0109 (0.00675)
maritalstatus	0.280 (0.393)	1.324 (0.520)	-0.00504 (0.00735)
levelofeducation	1.303*** (0.357)	3.679*** (1.314)	-0.0234** (0.0115)
profession	-0.692** (0.280)	0.500** (0.140)	0.0124* (0.00718)
financialconditions	0.310 (0.422)	1.363 (0.575)	-0.00556 (0.00790)
spendingpattern	-0.349 (0.467)	0.706 (0.329)	0.00626 (0.00875)
scalepurchasing	0.00269 (0.502)	1.003 (0.504)	-4.83e-05 (0.00902)
travellingpattern	-0.176 (0.553)	0.839 (0.463)	0.00316 (0.0100)
referencegroup	-0.515* (0.284)	0.597* (0.170)	0.00925 (0.00631)
family	0.00409 (0.301)	1.004 (0.302)	-7.35e-05 (0.00541)
security	-0.559* (0.323)	0.572* (0.185)	0.0100 (0.00706)

motivation	0.126 (0.283)	1.134 (0.321)	-0.00226 (0.00516)
perception	0.107 (0.310)	1.113 (0.345)	-0.00192 (0.00562)
attitude	0.535* (0.309)	1.707* (0.528)	-0.00960 (0.00677)
beliefs	0.834** (0.362)	2.302** (0.834)	-0.0150* (0.00888)
Constant cut1	-2.934*** (1.070)	0.0532*** (0.0569)	
Constant cut2	1.746* (1.010)	5.732* (5.792)	
Observations	260	260	260

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Field Study

This study show that guest behaviour towards hotel industry is affected by gender, level of education, profession, reference group, security, attitude, and beliefs. Table 6 shows that education, attitude and beliefs has a significant and positive influence on guest behaviour in hotel industry, having a p-value of less than 5% or 10%. In addition, gender, profession, reference group, and security have a negative impact on guest behaviour towards hotel industry during COVID-19 pandemic. In ordered logistic regression, the odds ratio represents the constant effect of a predictor X on the likelihood that one outcome will occur. In regression model, researcher often want a measure of the unique effect of each X and Y.

However, the result of odds ratio indicates that an increase in the gender, level of education, profession (private service), reference group, security, guest attitude, and beliefs increases the guest behaviour towards hotel industry, respectively. Similarly, result of marginal effects indicates that there are three significant variables, which are level of education, profession, and beliefs. The result shows a marginal effect of the level of education is -0.0234 which indicates that the guest's behaviour towards hotel industry is decreased by 0.0234 with a marginal change in level of education. Also, the result shows a marginal effect of profession is 0.0124 and indicates that guest behaviour towards hotel industry increased by 0.0124 with a marginal change in profession. Lastly, the result shows a marginal effect of beliefs of -0.0150, which indicates that the guest's behaviour towards hotel industry decreases by 0.0150 with a marginal change in guest beliefs.

4. DISCUSSION

This research tries to analyzing the impact of COVID-19 on guest behaviour towards hotel industry in the Kathamandu valley. Various variables are used for analyzing guest behaviour towards hotel industry. Such factors are personal factors, economic factors, social factors, and psychological factors (Kakkar et al., 2020). According to the Agustina and Yosintha (2021) COVID-19 has had a significant impact on hotel sector all over the world, not only in Asia but also in Europe, Africa, America, and Australia. In addition, the study suggests that most people visit hotels for personal reasons like refreshment tours, get-togethers, enjoyment, etc. However, the people from youth age group has travel more then elder age group people (Rather & Sharma, 2017). More than 80% of respondents who are between the ages of 21 to 40 years old have visited hotel during the pandemic to use their vacation time and get more refreshment. The study indicates that the ratio of males was 57.69% and females was 42.31%, which shows the number of males is higher than females. Similarly, Wang et al. (2018) found that there is an imbalance in power between males and females that exists in society and that such inequalities are manifested in several ways. It is also argued that the disparities between males and females are likely to influence their control over visiting, which in turn influences support for hotel industry.

Further, during the pandemic in hotel, there is a high risk of COVID-19, so the hotel needs to adopt various measures to make hotel clean and more secure from the coronavirus (Yacoub & ElHajjar, 2021). However, the awareness level about the cause of COVID-19 disease is a virus and is transmitted through close contact (Adeniyi et al., 2020; Ulak, 2020), it is found that almost 99% of people believe that COVID-19 is a virus and is transmitted through close contact. Therefore, the majority of the respondents are moderately aware of the COVID-19 in Kathmandu valley, which makes an assertion that the guest are still required to some awareness program regarding the Pandemic. Likewise, this study also found that the majority of the respondents are directly affected by financial conditions due to the COVID-19 and change their spending patterns while traveling. Most people change their travel patterns and the volume of their purchases when they travel. During their visit, the guests perceived various things in hotel; they changed their attitude level and their beliefs about the procedures used by hotel to prevent COVID-19 and other security threats.

The results of this study are relevant globally. According to Yacoub and ElHajjar (2021), from underdeveloped nations to developed ones, hotel business is facing massive problems and is being compared as one of the worst-affected industries worldwide due to the pandemic. The problems in the hotel like housekeeping, data security, change in technology, lack of refreshment events, improper marketing, and high competition were affecting guest behaviour while staying in the hotel. Hotels will

need to be creative and flexible in their offerings. Their success may be determined by how they present their experience to clients who have been confined and subjected to extreme stress. To ensure that their hotel is a preferable option, hoteliers must focus on the changing demands, concerns, and preferences of guest (Kour et al., 2021). Thus, the result shows that gender, level of education, profession, reference group, security, attitude, and beliefs are statistically significant and influence the guest behaviour towards hotel industry during COVID-19. The level of education, attitude, and beliefs of guests can have a positive impact on the guest's behaviour toward hotel industry. Likewise, gender, profession, reference group, and security can have a negative impact on guest behaviour towards hotel industry. Thus, as mentioned by Devkota et al. (2021a) conveying impetus for fostering post COVID tourism and hospitality entrepreneurship in touristic destination is essential through understanding guest behavior towards the hotel industry they are targeting and planning to visit.

The study's relevance extends to researchers in Nepal, as limited research exists on guest behavior in the hotel industry during COVID-19. Replication with broader coverage and additional variables is needed to analyze consumer behavior further. Future research should explore other hospitality sectors like airlines, restaurants, retail, and hospitality education.

5. CONCLUSION

This study aims to analyze the impact of COVID-19 on guest behavior in the Kathmandu valley's hotel industry. Using consumer satisfaction theory, the research examines how the pandemic has affected guest perceptions and behavior. Data from 260 guests were collected through structured questionnaires, revealing changes in spending patterns, travel plans, and purchasing behavior due to COVID-19. The study reveals that respondents are moderately aware of COVID-19 but highly affected financially. Changes in spending and travel patterns occurred, with many canceling travel plans due to the pandemic's impact on the hotel industry. Security emerged as an influential factor in hotel choice. COVID-19 significantly influenced guest behavior, attitudes, and financial positions, leading to canceled vacation plans. Seven significant variables were identified, including gender, education, profession, reference group, security, attitudes, and beliefs. Challenges during the pandemic included health safety issues, lack of refreshment events, unexpected charges, housekeeping problems, data security, air hygiene, and poor guest behavior. To address these challenges, hotels must prioritize health safety, improve services, and enhance guest experiences to rebuild confidence and recovery. Hotel also must be focused on customer service and satisfaction, proper supervision on the implementations of the new SOPs and manage the housekeeping issue. The study's policy advantages include data-driven decision-

making for the hotel industry, targeted interventions to address challenges, economic recovery measures, and enhanced crisis preparedness for long-term sustainability.

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