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Going beyond the curve: Strategic measures to recover hotel activity in times of COVID-19

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Abstract

Hospitality and tourism are facing unprecedented challenges on a global scale from the impact of the COVID-19 virus. Among the devastating global consequences is lack of tourism activity. The pandemic's catastrophic effects have initiated a profound transformation in the hospitality industry (among others) to adapt to a COVID-19 scenario. This study draws on the crisis management literature to develop a battery of general and strategic measures to help hotels adapt their business to the "new normal." The measures were evaluated and ranked by a sample of 237 Spanish hotel managers, and the results yield valuable theoretical and practical insights to guide hotels to recover business, innovate, and reinvent themselves in the new scenario.

Keywords: COVID-19, strategic measures, hotels, crisis management

1 Introduction

Already one of the most impactful events of this century (Zenker and Kock, 2020), the coronavirus (COVID-19) pandemic has completely transformed personal and social life, and radically altered the global scenario. Within weeks, COVID-19 spread across the globe, threatening the health of millions of people, especially in East Asia, Europe, and North America (Baum and Hai, 2020). Its rapid international spread has forced political, economic, and social changes, affecting all aspects of life on a scale unprecedented in modern times. Although the first cases were detected in Wuhan, China at the end of 2019 (Huang et al., 2020), confirmed cases worldwide doubled in less than three months. Rapid propagation of the virus posed a major threat to governments and society. With neither preventive vaccine nor effective medical treatment, most countries responded by implementing diverse non-pharmaceutical interventions (Gössling et al., 2020), including lockdown (home isolation), social distancing, closure of public facilities and non-essential businesses, and restrictions on public gatherings and mobility. The effects of these restrictions have rippled through all sectors of the economy but have had especially severe consequences for tourism activity.

The pandemic's global impact on tourism and hospitality (Sigala, 2020; Zenker and Kock, 2020) halted many countries' entire tourism infrastructure almost instantly, as international and domestic travel were curtailed (Baum and Hai, 2020; Donthu and Gustafsson, 2020). Governments' attempts to "flatten the curve" led to border shutdowns and travel restrictions in the world's largest economies and tourist markets (Nicola et al., 2020). Although it is still difficult to estimate the economic impact of this crisis on global tourism activity, specialized consultants estimate that over 100 million jobs are at immediate risk in this sector internationally and that the industry could lose over 2.7 trillion US\$ in turnover (WTTC, 2020). According to a report from the United Nations World Tourism Organization (UNWTO, 2020), international tourist arrivals declined by

44% between January and April 2020—a loss of approximately US\$195 billion in international tourism revenues. The International Monetary Fund predicts that Spain's GDP will be -8% in 2020 (IMF, 2020).

The virus affected nearly all parts of the global tourism and hospitality value chain (Gössling et al., 2020) as travel restrictions halted travel suddenly, cutting off activity in other segments such as air transport, cruises, restaurants, and lodging. With borders closed, lockdowns, and mobility restricted, international and domestic tourism vanished in weeks (Baum and Hai, 2020; Gössling et al., 2020).

The pandemic has affected hotels and lodging tremendously, causing massive closures. Nicola et al. (2020) argue that the hospitality industry is among the hardest hit, with temporary workers facing potentially devastating hardships. The pandemic strikes at the very DNA of hospitality (Rivera, 2020). "Social distancing," which recently entered common lexicon, is the antithesis of what we expect from hospitality and tourism (Baum and Hai, 2020). The essence of hospitality service lies in creating unique experiences, often based on closeness with clients and unique interactions with staff and facilities. The new scenario places hotels in unknown territory, requiring them to adapt their entire value creation process to meet new health standards. Restaurants, hotels, airports, and public spaces must re-engineer operations to become contact-free or contactless (Sigala, 2020). Hotels must rethink the entire service process.

Global tourism has weathered disruptive events and diverse crises in the recent past (Gössling et al., 2020), but the effects of this pandemic are unique. Evidence shows that the impact and recovery from COVID-19 will be will require unprecedented measures. In this scenario, research on crisis management and planning are imperative, particularly in a hotel context (Rivera, 2020). Helping hotels face this uncertainty urgently requires study to answer new questions generated by the complexity of the situation and resulting changes throughout the tourism industry. How, at micro-level, can hotels design new ways to operate under social distancing rules (Zenker and Kock, 2020)? How do accommodations firms adapt quickly to new safety requirements (Gössling et al., 2020) or act strategically to recover business? What are the key organizational factors enabling recovery from the crisis and the most relevant collaborations with other agents in this process (Rivera, 2020)? Business models must be resilient (Neumeyer and Santos, 2018), especially in hotels (Romao, 2020), to survive disruption without significant loss of function. They must undertake changes to transform essential behaviors, structures, and identity into a system more capable of responding to disruption (Roundy et al., 2017).

To face these challenges, we explore strategic measures hotels can use to adapt their business to the COVID scenario. After reviewing studies on crisis management in the sector, we propose a list of general and specific measures. These measures are then evaluated by an empirical sample of Spanish hotel managers. We subsequently examine the items' strategic relevance and categorize items by importance. The study implications provide significant recommendations to help hotel managers prepare their businesses better for the foreseeable future.

The remainder of the paper is organized as follows. The next section explains the literature review on crisis management in tourism and describes strategic measures to overcome crisis. We then explain the methodology and data analysis, and discuss the results. Finally, we draw conclusions and highlight the study's practical implications.

2 Theoretical framework

The tourism industry has proven highly sensitive to negative environmental factors such as economic crises, natural disasters, wars, and terrorism. Such catastrophes have intense negative effects on segments of the tourism sector (airlines, restaurants, accommodations firms) (Kim et al., 2005). In the last twenty years, the world has experienced a wide range of crises that directly impacted global tourism: the September 11th terrorist attacks (2001), the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak, the global economic and financial crisis that began in 2009, and the 2015 Middle East Respiratory Syndrome (MERS) outbreak (Gössling et al., 2020). Yet none of these disruptive events compares in scale to the impact of COVID-19. In fact, the pandemic's global scale and unprecedented circumstances are signs that this crisis is not only different but can inspire long-term transformational changes in tourism as socio-economic activity (Sigala, 2020).

Tourism is inherently vulnerable to disaster and external crisis, from natural to humanly influenced incidents (Ritchie, 2004). In our interconnected global society, mobility and travel have increased exponentially in recent decades. Millions of international tourists travel freely to places with varied risks,

adding new unpredictable vulnerabilities to the tourism activity (Brown et al., 2017). Given this industry's high sensitivity to environmental, political, and socio-economic risks, the traditional lack of research on crisis or disaster phenomena in tourism is surprising. Despite some recent studies of crisis management in tourism, the field lacks research on both the impact of such events on specific organizations and responses to such events (Faulkner, 2001; Ritchie, 2004). This section reviews existing literature on crisis management in the tourism sector, first defining the main related concepts and then summarizing relevant studies of crisis management and recovery plans in the hotel sector.

The concepts of crisis and disaster, have been widely described in the literature, particularly in tourism contexts (Brown et al., 2017; Faulkner, 2001; Lo et al., 2006; Ritchie, 2004). Following Faulkner's (2001) conceptualization, disasters can be defined as unpredictable catastrophic changes that originate outside the organization and over which organizations have very little control. As Kim et al. (2005) highlight, a disaster involves unexpected changes to which one can normally respond only after the event happens, by implementing contingency plans or responding reactively. Crisis is defined as any action or failure to act that interferes with an organization's ongoing functions, achievement of objectives, or viability or survival; or that has a detrimental personal effect on its main stakeholders (Ritchie, 2004). According to the literature, a crisis is caused by lack of planning and proper management and could thus have been anticipated, whereas one can only respond to a disaster after the fact (Kim et al., 2005). The principal distinction between 'crisis' and 'disaster' is thus the extent to which the situation is attributable to the organization itself or originates outside the organization (Ritchie, 2004).

Following these definitions, the COVID-19 outbreak can be classified as a disaster for the global tourism industry, as the industry had little control over the effects of the outbreak and rapid spread of the virus. Because the COVID-19 pandemic is unique in nature, scale, and complexity, however, the pandemic represents a combination of natural disaster, socio-political crisis, economic crisis, and tourism demand crisis (Zenker and Kock, 2020). To address this complex situation properly, tourism research must help managers implement crisis recovery and response strategies, and advance valuable knowledge for informing, fostering, and shaping crisis-enabled transformations in the industry (Romao, 2020; Sigala, 2020).

Development and implementation of crisis guidelines is essential to facilitate tourism's recovery from

negative events by protecting or rebuilding attractive area image, reassuring potential visitors of the area's safety, and aiding local tourism firms during their economic recovery (Kim et al., 2005). Crisis management aims to help hotel and tourism organizations combat sudden threats and survive in the long term (Leung and Lam, 2004). Contingency plans with post-crisis mitigation measures are especially important for hotel firms, because the immediate steps a hotel takes after a catastrophe can reassure guests and other stakeholders that the company is working aggressively to return to normal operation (Lo et al., 2006). Because the COVID-19-induced economic and tourist crisis has some similarities with prior crises and disasters (Zenker and Kock, 2020), studies of crisis management in prior disruptive events that affected tourism (SARS, Ebola, financial crisis, terrorism) provide valuable ideas on how to respond to the current situation. We focus here on studies of crisis management in hospitality as a source of measures to manage activity restart strategically.

Table 1 summarizes the main results of studies on crisis management in the major hospitality and tourism journals (ordered chronologically), and recent studies of crisis management in a COVID-19 scenario.

Analysis of this literature shows that most hotels lacked contingency plans for the crises studied and thus responded primarily reactively, implementing a wide variety of strategic responses. Among the most frequent responses were cost-saving initiatives, continued marketing efforts, enhanced internal and external communication, new offers and extension of activity to new segments, enhanced flexibility to avoid cancelations, specific staff training, collaboration with other agents, and implementation of new technologies to minimize personal contact. Our study included all of these measures in designing the questionnaire for managers.

Authors	Topic	Country examined	Method	Main findings
Chien and Law (2003)	Impact of SARS outbreak on hotels	Hong Kong	Theoretical paper	Hotel industry in Hong Kong was badly affected SARS outbreak. To cope with the situation, hotels must develop contingency plans to restore guest confidence. Among main measures highlighted: regular staff meetings, enforcing environmental hygiene and cleaning policies, media handling, and special attractive packages.
Israeli and Reichel (2003)	Hotel management of crisis from intensification of terrorism	Israel	Quantitative analysis of sample of 116 Israeli hotel managers	Develops a questionnaire to evaluate importance of four categories of practices for crisis management: marketing, human resources, hotel maintenance, and government. Some valuable measures involved cost savings, focusing marketing efforts on domestic tourism, and developing special offers.

Table 1: Studies examining crisis management and strategic measures to overcome crisis

Leung and Lam (2004)	Impact of SARS outbreak on hotels and human resources strategies to tackle crisis	Hong Kong	Qualitative methodology (case study)	Most hotels lacked contingency plans to deal with crisis. Some faced crisis by focusing on human resources: layoffs and unpaid leave (to reduce costs), enhanced communication with employees (regular meetings), and specific employee training.
Kim et al. (2005)	Impact of SARS on Korean hotels and proposal of measures to overcome crisis	Korea	Qualitative methodology (case study of six five-star hotels)	Highlights importance of crisis management systems and action plan to react quickly. Korean hotels tried to minimize operating costs, offered employees specific training programs, and developed intensive marketing campaigns in collaboration with other agents in the sector.
Lo et al. (2006)	Practices employed by hotels to survive during SARS disaster	Hong Kong	Qualitative case study of multiple cases (6 hotels)	Explains main strategic measures developed by hotels to survive difficult times: enhance internal communication to maintain employee morale, intensify communication with customers and promotions, and collaborate with other tourist agents and public institutions.
Kimes et al. (2009)	Practices to manage hotel rates during economic downturn (global financial crisis)	International sample	Quantitative analysis of global sample (Europe, Asia-Pacific, Africa America) of 291 hotel managers	Hotels can respond to economic crisis with various non- price-related competitive methods: competing on the basis of quality, creating strategic partnerships with distribution channels, focusing on loyalty program members, and developing additional revenue sources or market segments (local customers).
Brown et al. (2017)	Literature review on crisis and disaster resilience in hotel sector	Theoretical study	Literature review and synthesis	Although literature on disaster management has recently expanded, most hotels are not actually prepared and have not implemented specific plans.
Novelli et al. (2018)	Effect of Ebola outbreak on tourism	Gambia	Rapid Situation Analysis research methodology combining interviews, direct observation, and informal discussion	Highlights importance of proactively formulating strategies to facilitate rapid response to crisis. Strategic measures developed: cost-cutting strategies, control of communications and media, flexibility polices to stop cancelations, incentives and discounts. and joint marketing with other agents.
Kimes (2020)	How hotels are responding to COVID-19 outbreak	International sample	Quantitative analysis of global sample (Europe, Asia, America, Africa) of 893 hotels	Examines different measures in the following categories: marketing, operations, cost-cutting, customer refund polices. Strategies that worked best according to respondents: targeting new segments, increasing flexibility, and enhancing communication with customers
Sigala (2020)	Impacts and implications of COVID-19 for tourism firms	Theoretical study	Literature review and direct observation	Describes types of measures tourism firms are implementing: redesign of experiences, adoption of new standards and cleaning procedures, implementation of mobile apps (for check-in, room-keys), in-room technologies, robots (to minimize personal contact).
Hao et al. (2020)	Impact of COVID-19 on hotel industry and post-pandemic agenda.	China	Literature review and direct observation in China.	Exploratory review of overall impacts of COVID-19 pandemic on China's hotel industry. Proposes COVID-19 management framework to address anti-pandemic phases, principles, and strategies.

Source: Developed by the authors.

3 Methodology

3.1 Measures and sample

This study seeks strategic measures for hotels to cope with and adjust their business to the COVID-19 pandemic. First, we identified measures in the literature. Second, we conducted in-depth interviews with 25 hotel managers in Spanish to understand their perspectives about the COVID-19 situation. From these initial steps, we developed two lists of measures. Several academics, consultants, and hotel managers with

knowledge of the topic analyzed the content, wording, and comprehensibility of the questionnaire items. Based on their suggestions, we refined the questionnaire, conducted a pilot test with a random sample of fifteen hotel managers, and modified the questionnaire based on these managers' responses. The final questionnaire had two parts: general and strategic measures for hotels. The first 20 items covered general measures against COVID-19, divided into measures for citizenship at individual and social levels, health, hygiene, and prevention (Table 2). The second 26 items covered strategic measures to facilitate hotel adjustment and recovery COVID-19, divided as follows: marketing, reservations and price incentives, value-added services, technology, collaboration, and organizational measures (Table 3). The items were measured using a Likert scale ranging from 1 ("totally disagree," measure is completely irrelevant) to 7 ("totally agree", measure is very relevant). Appendices 1 and 2 provide the full list of measures.

The questionnaire was administered to a sample of hotel industry professionals (Table 10). General managers were the key informants, and the questionnaire was designed to examine their perception of how useful different measures would be in facing the challenge of recovering activity after confinement and adjusting to a "new normal" by minimizing health risks. We chose the hotel industry because of the lack of academic and managerial research on how hotels can respond to and recover from the COVID-19 crisis (Rivera, 2020). We focus on Spain, a World's Top Tourism Destination and a country where tourism is essential to the national economy. According to the World Tourism Organization (2020), Spain remained the top European destination and the third worldwide in international visitor spending (US\$86.8 billion). Spain's 2019 travel and tourism GDP was US\$198 billion, 14.3% of Spain's economy.

A list of general managers was created with partial funding from the Spanish Ministry of Science and Research. We randomly selected 1000 Spanish companies from a total population of 6417 hotels that reopened in July 2020 in Spain (INE, 2020) (Table 4). Calls and emails to companies were used to increase participation, yielding 237 valid questionnaires (response rate 23.7%). We found no statistically significant differences among respondent and non-respondent firms (e.g., by comparing number of employees and annual sales) or among early and late respondents (Armstrong and Overton, 1977).

Table 10: Technical details of the research						
Sector	Hotel industry					
Geographical location	Spain					

Methodology	Structured questionnaire
Universe of population	6417 hotels
Sample size (response size)	1000 firms (237 firms, 23.7%)
Sample error	6.4%
Confidence level	95%, p-q=0.50; z=1.96
Data collection period	June to August 2020

3.2 General Measures

Factor analysis of the general measures (Table 4) reveals that the 20 measures, grouped into five factors through principle component analysis and varimax rotation, account for 61.68% of the variance. The minimum loading for each measure on a factor was 0.50. The first factor included general measure (GM) 1 (foster social distance), GM5 (limit public meetings), GM6 (limit capacity of bars, cinemas, leisure centers, clubs), GM7 (limit capacity of restaurants, shopping centers), GM8 (cancel/postpone/reduce number at mass events), and GM9 (promote telework). This factor accounted for 31.11% of the variance and was labeled "reduce number of people in close contact." The second factor was composed of GM12 (strengthen national health structure), GM13 (train employees in potential positive cases), GM14 (control positive results closely), and GM16 (increase hygiene habits). This factor accounted for 9.34% of the variance and was labeled "health aspects." The third factor was composed of GM17 (temperature controls), GM18 (use masks), GM19 (allow geo-location), and GM20 (strict border control). This factor accounted for 7.65% of the variance and was labeled "mask and control." The fourth factor was composed of GM10 (adapt common areas), GM11 (extend confinement period or greatly limit mobility), and GM15 (provide supplies, rooms, and common areas with antibacterial and disinfectant gel; place furniture at appropriate distance). This factor accounted for 7.16% of the variance and was labeled "adapt areas, supplies, and common areas." The fifth factor was composed of GM2(expedite immunity passport), GM3 (isolate potential positive cases), and GM4 (test employees for COVID-19). This factor accounted for 6.40% of the variance and was labeled "test and immunity passport."

I able 4: R	Table 4: Rotated component matrix for general measures									
Variable		Component								
variable	1	2	3	4	5					
GM1	0.555	-0.222	0.320	0.249	0.096					
GM5	0.702	0.006	0.248	0.064	0.132					
GM6	0.863	0.145	0.056	0.096	0.094					
GM7	0.830	0.145	0.024	0.050	0.093					
GM8	0.678	0.221	0.158	0.024	0.099					
GM9	0.505	0.283	0.065	0.181	0.056					

GM12	0.088	0.813	-0.009	0.076	0.164
GM13	0.191	0.790	0.080	0.170	0.153
GM14	0.127	0.665	0.311	0.181	0.105
GM16	0.214	0.598	0.254	0.186	0.109
GM17	0.072	0.291	0.607	0.150	0.126
GM18	0.187	0.435	0.570	0.015	0.012
GM19	0.202	-0.057	0.737	0.093	0.106
GM20	0.148	0.158	0.807	0.062	0.121
GM10	0.180	0.231	0.129	0.743	0.017
GM11	0.186	0.034	0.202	0.746	0.155
GM15	0.028	0.205	-0.019	0.778	-0.001
GM2	0.168	0.046	0.150	0.037	0.724
GM3	0.150	0.158	0.156	0.222	0.765
GM4	0.071	0.237	0.025	-0.063	0.795

Extraction method: Principle Component Analysis. Rotation method: Varimax with Kaiser Normalization.

A rotation converged in six iterations.

Table 5 displays the means, standard deviation, and inter-factor correlation matrix for the study variables.

We obtain significant and positive correlations among all variables.

1 abio	Table 5. Means, standard deviation, correlations, and confidence interval								
Variable	Mean	s.d.	1	2	3	4	5		
1. Reduction number people	6.27	0.94	1.000	0.49-0.69	0.50-0.68	0.47-0.69	0.45-0.69		
2. Health aspects	6.68	0.66	0.41***	1.000	0.61-0.76	0.61-0.82	0.46-0.72		
3. Mask and control	5.91	1.21	0.44***	0.45***	1.000	0.48-0.70	0.48-0.74		
4. Adaptation common areas	6.16	1.16	0.34***	0.41***	0.32***	1.000	0.36-0.64		
5. Test and sanitary pass	6.32	1.05	0.35***	0.38***	0.33***	0.22***	1.000		

Table 5: Means, standard deviation, correlations, and confidence interval

Notes: * p < 0.05; ** p < 0.01; *** p < 0.001; n=237; Numbers above the diagonal represent the confidence interval between each pair of constructs (95%).

The scales presented satisfactory levels of reliability with composite reliabilities (CRs) ranging from 0.81 to 0.91 (above recommended minimums>0.7) and average variances extracted (AVE) from 0.57 to 0.69 (AVE>0.50). The Cronbach's Alphas (0.71-0.83) also exceeded the recommended 0.707 minimum (Nunnally and Bernstein, 1994). Each loading (λ) was significantly related to its underlying factor (t-values>13.47). The AVE, Cronbach's Alpha and CR supported the scales' reliability and internal consistency (Fornell and Larcker, 1981). Convergent validity was supported for all multi-item constructs. To determine discriminant validity, we performed a series of chi-square difference test between the values obtained for one constrained model and one unconstrained model. The results showed that the constructs did not correlate perfectly (discriminant validity). Furthermore, no confidence interval in the estimation of correlations between each pair of factors contained the value 1 for the key constructs, supporting discriminant validity (see Table 6). These tests prove that each construct differs from the others (Fornell and Larcker, 1981). The measurement

model also shows good fit (χ² (160 d.f.)=381.58 (p>0.01); NFI=0.98; NNFI=0.96; IFI=0.99; PGFI=0.61; NCP=221.58; RFI=0.98; CFI=0.99; RMSEA=0.05).

Variable	Items	λ*	\mathbb{R}^2	A.M.			
	GM1	0.66***(16.48)	0.57				
	GM5	0.77***(24.74)	0.59				
Reduction number	GM6	0.92***(59.92)	0.84	α=0.830 CR=0.919			
people	GM7	0.90***(43.57)	0.81	AVE=0.658			
	GM8	0.77***(22.11)	0.59				
	GM9	0.63***(13.98)	0.53				
	GM12	0.83***(22.87)	0.68				
Usalth agreets	GM13	0.86***(29.12)	0.73	α=0.805 C.=0.90			
rieann aspects	GM14	0.86***(25.77)	0.73	AVE=0.69			
	GM16	0.78***(20.90)	0.60				
	GM17	0.71***(18.86)	0.50				
Mastr and control	GM18	0.74***(19.64)	0.54	α=0.738 CR=0.84			
Mask and control	GM19	0.70***(20.68)	0.50	AVE=0.57			
	GM20	0.86***(35.35)	0.73				
A 1	GM10	0.81***(21.20)	0.65	0 720 CD 0 01			
Adaptation	GM11	0.72***(17.57)	0.51	$\alpha = 0.720 \text{ CK} = 0.81$			
common areas	GM15	0.67***(15.12)	0.59	AVE-0.38			
Test and immunity	GM2	0.64***(13.97)	0.54				
rest and minimumity	GM3	0.79***(19.69)	0.62	$\alpha = 0.718 \text{ CK} = 0.81$			
passport	GM4	0.78***(13.47)	0.60	AVE-0.39			
Goodness-of-fit statistics	χ ² ₁₆₀ =381.58 (<i>P</i> >0.01) Ε P	=381.58 (<i>P</i> >0.01) ECVI=0.85 AIC=481.58 CAIC=748.51 NFI=0.98 NNFI=0.96 IFI=0.99 PGFI=0.61 PNFI=0.83 NCP=221.58 RFI=0.98 CFI=0.99 RMSEA=0.05					

Table 6: Measurement model results

Notes: $\lambda^*=$ Standardized Structural Coefficient; R²=Reliability; α =Alpha Cronbach; C.R.=Composite Reliability; S.V.=Shared Variance; f.p. =fixed parameter; A.M.=Adjustment Measurement; * p<0.05; ** p<0.01; *** p<0.001 (two-tailed).

Finally, the potential for common method bias was analyzed (Podsakoff et al., 2003; Podsakoff and Organ, 1986). To prevent such bias, the study communicated its goals, assured participants of the survey's anonymity, and randomized item order. Harman's one-factor test did not register common method bias (largest single component did not explain majority of the variance in our data, 31.11%; five components with eigenvalues of over 1.0 globally explained over 62% of total variance). We also developed a one-factor model and compared it to the measurement model (worse fit for one-dimensional model than for measurement model), adding a first-order factor (common latent factor) with all measures as indicators to the researcher's theoretical model (no differences greater than 0.200 between indicator loading before and after adding common latent factor). All tests indicated that common method bias was not a serious threat to our data.

3.3 Strategic Measures

Factor analysis of the strategic measures (Table 7) revealed that the 26 measures, grouped into six factors through principle component analysis and varimax rotation method, accounted for 65.07% of the variance.

The minimum loading for each practice on a factor was 0.50. The first factor included strategic measure (SM) 16 (provide online check-in/check-out), SM17 (provide 24-hour online customer service), SM18 (adapt meeting and event facilities to support videoconferences and online congresses), SM19 (minimize paper use and digitalize activities), SM20 (collaborate with local entities to create unique offers and packages aimed at local public), and strategic measure SM21 (collaborate actively with other agents in sector to launch joint communication campaigns). This factor accounted for 32.42% of the variance and was labeled "technology and collaboration." The second factor was composed of SM22 (create contingency plan including protocols and actions), SM23 (place someone in charge of health security), SM24 (train staff on safety and hygiene), SM25 (establish effective internal communication channels), and SM26 (plan to reduce and control operating costs). This factor accounted for 9.25% of the variance and was labeled "organizational measures." The third factor was composed of SM1 (invest in digital marketing, SEO position brand image in metasearch engines), SM2 (redesign advertising messages), SM3 (focus specific campaigns on local audience and expand them to other segments), SM4 (advertise on social networks), SM5 (offer specific benefits for regular customers), and SM6 (design offers and packages oriented to national market, including additional benefits). This factor accounted for 7.02% of the variance and was labeled "marketing." The fourth factor was composed of SM9 (encourage direct booking through hotel website, offer exclusive advantages), SM10 (offer customer additional benefits), SM11 (offer personalized customer service line), SM14 (improve customer's integral well-being), and SM15 (offer discounts for additional hotel services). This factor accounted for 6.12% of the variance and was labeled "additional customer benefits." The fifth factor was composed of SM12 (provide customers safe transportation to accommodation), and SM13 (provide more flexible entry/exit times for accommodation). This factor accounted for 5.51% of the variance and was labeled "safe transportation and entry/exit for accommodation." The sixth factor was composed of SM7 (improve free cancelation options), and SM8 (provide more flexible non-refundable rates to avoid cancelations). This factor accounted for 4.73% of the variance and was labeled "cancelation measures."

Component Variable 2 1 3 4 5 6 SM16 0.124 0.742 0.047 0.244 0.062 -0.011SM17 0.614 0.310 0.073 0.235 0.046 0.285 SM18 0.682 0.201 0.174 0.215 0.031 0.134 SM19 0.406 0.214 0.247 0.034 0.087 0.588

Table 7: Rotated component matrix for strategic measures

SM20	0.737	-0.029	0.227	0.079	0.106	-0.013
SM21	0.654	0.114	0.183	-0.041	0.299	0.118
SM22	0.180	0.740	0.149	0.312	-0.011	-0.020
SM23	0.029	0.807	0.134	-0.088	0.315	-0.112
SM24	0.062	0.888	0.134	0.043	-0.066	0.166
SM25	0.293	0.773	0.129	0.098	0.127	0.211
SM26	0.257	0.544	0.149	-0.052	0.003	0.335
SM1	0.116	0.175	0.754	0.175	0.120	0.027
SM2	0.206	0.306	0.721	-0.006	-0.090	0.050
SM3	0.333	0.208	0.615	0.022	0.389	-0.042
SM4	0.149	-0.033	0.763	0.203	0.076	0.044
SM5	0.193	0.063	0.601	0.148	0.375	0.374
SM6	0.043	0.160	0.533	0.278	0.049	0.285
SM9	-0.150	0.153	0.173	0.594	0.312	0.127
SM10	0.270	-0.109	0.150	0.615	-0.086	0.182
SM11	0.133	0.316	0.288	0.598	-0.025	0.022
SM14	0.359	-0.025	0.035	0.675	0.238	0.123
SM15	0.352	0.088	0.128	0.584	0.163	0.049
SM12	0.241	0.077	0.028	0.202	0.790	0.119
SM13	0.094	0.066	0.212	0.102	0.794	0.123
SM7	0.207	0.074	0.125	0.140	0.239	0.737
SM8	0.003	0.117	0.081	0.170	0.040	0.856

Extraction method: Principle Component Analysis.

Rotation method: Varimax with Kaiser Normalization.

A rotation converged in seven iterations.

Table 8 shows the means, standard deviations, and inter-factor correlation matrix for the study variables. We obtained significant and positive correlations among all variables.

Table 8: Means, standard deviation, correlations, and confidence interval								
Variable	Mean	s.d.	1	2	3	4	5	6
1. Technology and collaboration	5.54	1.19	1.000	0.49-0.85	0.49-0.86	0.54-0.90	0.27-0.79	0.24-0.74
2. Organizational measures	6.05	1.08	0.46***	1.000	0.36-0.78	0.24-0.68	0.08-0.54	0.20-0.69
3. Marketing	5.83	0.89	0.52***	0.44***	1.000	0.47-0.87	0.31-0.81	0.15-0.72
4. Additional customer benefits	5.42	0.90	0.55***	0.29**	0.49***	1.000	0.30-0.90	0.28-0.82
5. Accommodation	4.87	1.39	0.38***	0.25*	0.41***	0.40***	1.000	0.23-0.76
6. Cancelation measures	6.10	0.85	0.34**	0.38**	0.35***	0.36***	0.31**	1.000

Notes: * p < 0.05; ** p < 0.01; *** p < 0.001; n=237; Numbers above the diagonal represent the confidence interval between each pair of constructs (95%).

The scales showed satisfactory levels of reliability, with CRs ranging from 0.76 to 0.91 and AVEs from 0.54 to 0.70. Similarly, Cronbach's Alpha values ranged from 0.72 to 0.85. Each loading (λ) was significantly related to its underlying factor (t-values>6.06). The AVE, Cronbach's Alpha, and CR supported the scales' reliability and internal consistency (Fornell and Larcker, 1981). Convergent validity was supported for all multi-item constructs. To test discriminant validity, a series of chi-square difference tests was performed between the values obtained for one constrained model and one unconstrained model. The results showed that the constructs did not correlate perfectly (discriminant validity). Furthermore, no confidence interval in the estimation of correlations between each pair of factors contained the value 1 in the key constructs, supporting discriminant validity (see Table 9). These tests prove that each construct differs from the others (Fornell and Larcker, 1981). The measurement model also shows good model fit (χ^2 (284 d.f.)=299.24 (p>0.01); NFI=0.92; NNFI=0.99; IFI=0.99; PGFI=0.52; NCP=15.24; RFI=0.91; CFI=0.99; RMSEA=0.02).

Table 9: Measurement model results							
Variable	Items	λ^*	R ²	A.M.			
	SM16	0.75***(12.53)	0.56				
	SM17	0.76***(12.29)	0.57				
Technology and	SM18	0.75***(12.15)	0.56	α=0.845 CR=0.89			
collaboration	SM19	0.87***(15.69)	0.75	AVE=0.59			
	SM20	0.72***(7.47)	0.51				
	SM21	0.76***(7.47)	0.57				
	SM22	0.81***(8.54)	0.65				
	SM23	0.78***(13.55)	0.60	0.054 CD 0.01			
Organizational	SM24	0.90***(21.50)	0.81	$\alpha = 0.854 \text{ CR} = 0.91$			
measures	SM25	0.88***(16.95)	0.77	AVE-0.03			
	SM26	0.71***(7.70)	0.50				
	SM1	0.78***(11.34)	0.60				
	SM2	0.75***(10.38)	0.56				
Maulastina	SM3	0.75***(13.41)	0.56	α=0.839 CR=0.87			
Marketing	SM4	0.71***(8.24)	0.50	AVE=0.54			
	SM5	0.73***(9.15)	0.53				
	SM6	0.73***(6.19)	0.50				
	SM9	0.71***(6.81)	0.53				
A 11'4' 11	SM10	0.71***(6.39)	0.50	0.720 CD 0.95			
Additional	SM11	0.75***(6.06)	0.50	$\alpha = 0.729 \text{ CR} = 0.85$			
customer benefits	SM14	0.75***(11.51)	0.56	AVE=0.34			
	SM15	0.79***(8.19)	0.62				
A 1.4"	SM12	0.78***(7.94)	0.60	α=0.733 C.R.=0.76			
Accommodation	SM13	0.79***(10.85)	0.62	AVE=0.61			
Concelation	SM7	0.90***(12.24)	0.81	a=0.730 C P =0.82			
measures	SM8	0.77***(9.34)	0.59	AVE=0.70			
Goodness-of-fit	$\chi^{2}_{284}=299.24 \ (P>0.0$	1) ECVI=5.55 AIC=433.24 CAIC	=659 NFI=0.92 NNFI	=0.99 IFI=0.99 PGFI=0.52			
statistics	statistics PNFI=0.80 NCP=15.24 RFI=0.91 CFI=0.99 RMSEA=0.02						

 Table 9: Measurement model results

Notes: $\lambda^*=$ Standardized Structural Coefficient; R²=Reliability; α =Alpha Cronbach; CR=Compound Reliability; S.V.=Shared Variance; f.p. =fixed parameter; A.M.=Adjustment Measurement; * p<0.05; ** p<0.01; *** p<0.001 (two-tailed).

Finally, Harman's one-factor test did not detect common method bias (largest single component did not explain majority of the variance in our data, 32.42%; six components had eigenvalues over 1.0, globally explaining over 65% of total variance). Nor did using the one-factor model or a first-order factor.

4 Results

4.1 Relevance of general measures

First, we examine the relevance managers attributed to the list of *general measures* proposed—measures successfully implemented and recommended by political and health authorities in different countries. These measures were grouped into "reduce number of people in close contact," "health aspects," "mask and control," "adapt rooms, material and common areas," and "test and immunity passport." Table 11 summarizes the main results obtained from evaluating each measure according to three levels of support: strongest support (1st-7th levels), strong support (8th-14th levels), and medium support (15th- 20th levels). All measures were rated on a scale from 1 ("totally disagree" with the measure) to 7 ("totally agree").

10	the III Seneral measures	of support lever (mean	secte, craci or measure)	
Reduction number people	Health aspects	Mask and control	Adaptation common areas	Test and immunity passport
Promote telework (6.62, 5 th)	Control positive results closely (6.74, 1 st)	Use masks (6.45 , 7 th)	Provide material, room and common areas with antibacterial and sanitizer gel (6.24, 10 th)	Test employees for COVID-19 (6.67, 3 rd)
Limit capacity of restaurants and shopping centers (6.39, 8 th)	Strengthen national health structure $(6.72, 2^{nd})$	Perform temperature detection controls (6.10, 15 th)	Extend confinement period (6.20, 12 th)	Isolate potential positive cases (6.23, 11 th)
Cancel/postpone/reduce number at mass events (6.35, 9 th)	Train employees (6.66, 4 th)	Implementstrictborder control(6.08,16 th)	Adapt common areas (6.06, 18 th)	Expedite immunity passport (6.07, 17 th)
Foster social distancing (6.20, 13 th)	Increase hygiene habits (6.61 , 6 th)	Allow geo-location (5.02, 20 th)		
Limit capacity of bars, cinemas, leisure centers, clubs (6.19, 14 th)				
Limit public meetings (5.91, 19 th)				

 Table 11: General measures by support level (mean score, order of measure)

Notes: In parentheses, mean score and order of measure in support

1st -7th measures (strongest support)

8th -14th measures (strong support)

15th -20th measures (medium support)

The practice ranked highest in importance was "control positive results closely" (6.74), followed by "strengthen national health structure" (6.72), "test employees for COVID-19" (6.67), "train employees" (6.66), "promote telework" (6.62), "increase hygiene habits" (6.61), and "use masks" (6.45). Noteworthy measurements were "control customers and employees closely when they test positive for COVID-19" (1st

measure supported) and "test employees for COVID-19 to avoid future contagion from employees" (3rd measure). The Andalusian government, for example, has provided over 250,000 tests for hotel and hospitality sector staff so that workers and customers can rest easy and enjoy safe vacations. Other communities have launched similar initiatives. The government of the Canary Islands performs rapid tests for COVID-19 antibodies on hotel sector workers and provides free voluntary testing to customers at each hotel. Chains such as Servigroup Hotels perform COVID-19 detection tests on their staff. Some hotels (e.g., VP Hotels chain) perform quick tests on customers, who may only access the hotel if they test negative.

Hotel managers also highlighted the need to strengthen the national health structure (2nd measure). Hospitals must have capacity to absorb infections through more beds, doctors, and support and nursing staff. All services must be closely linked to form an effective chain and convey a more positive image to encourage national and international tourism. Further, hotels must know how to handle cases as they arise, avoid creating alarm, and prevent contagion. Hotel staff need training to attend customers who unexpectedly test positive (4th measure). Hotel chains are developing training to perform daily tasks more safely, use personal protection and hygiene equipment safely, and deal properly with COVID-19 cases. Employees participate in seminars and training sessions that share best practices for handling contagion among employees and/or customers, improving protocols and procedures.

Another measure managers supported strongly was enabling telework (5th measure) where feasible and limiting numbers of people in workplaces where physical attendance is necessary. Managers also valued organization of shifts to respect rules such as maintaining safe distance between workers. In addition, managers recognized the need to promote specific measures to intensify hygiene habits and make antibacterial gel stations widely available in companies, institutions, and shops, and on the street (6th measure). Proper handwashing technique and hygiene are essential to prevent people from contracting and spreading the virus. Several Asian countries learned the importance of these measures from SARS in 2003 and have applied them. Taiwan, Hong Kong, and Singapore have antibacterial gel devices on the street, not just in shops, companies, or other institutions. Finally, managers supported mandatory mask use for all citizens (in open and closed spaces) (7th measure). In Spain, mask use is mandated by law until there is a COVID-19 vaccine.

Other essential short-/medium-term practices include limiting restaurant and shopping center capacity (8th measure) and capacity of bars, cinemas, leisure centers, and clubs (14th measure). All of these places enforce restrictions on capacity and sanitary measures. Canceling, postponing, or reducing attendance at mass events (concerts, festivals, sporting events) (9th measure) with high concentrations of people is another measure with global effects. Sports events can be held behind closed doors. Decisions to reduce numbers at mass events depend on each community.

Managers recognized the need to prepare every room and hotel common areas with supplies such as antibacterial and hygiene gel and to train people to use the supplies whenever they enter or leave these places (10th measure). It is also crucial to adapt part of the hotel to isolate potential positive cases, providing medicine and hygienic conditions in these areas so that the virus does not spread (11th measure). Some hotels give guests welcome kits (individual hydroalcoholic gel for hands, mask, gloves) at check-in for use during the stay. Some hotels have special rooms with a healthcare team to test for and monitor possible cases (e.g., VP Hotels). If guests receive negative results, they may access the hotel, always respecting security measures.

Finally, we highlight hotel sector support for extending the confinement period for elderly or vulnerable people (those with risk-related pathologies) to protect them in the short term, or establishing very limited mobility (12th and 13th measures). Some hotels and municipalities reserve spaces in their hotels and beaches so that vulnerable groups can enjoy their services, while also encouraging social distancing and implementing measures for greater physical distance and less physical contact between people in the short term. Last summer, Spain implemented specific measures in public places where physical distance was expected to be very difficult to achieve (e.g., beaches) by limiting capacity.

This third section contains measures for which managers expressed medium-level support, among them, temperature controls to detect potential cases (15th measure). Thermal imaging cameras to measure body temperature are being installed in hotels to detect and contain COVID-19. Further measures include strict border control and creation of databases to monitor and record the health and temperature of each traveler, followed by classification using QR codes and based on risk levels (16th measure). Managers responded with caution and less extensive support to expedition of "immunity passport" to enable those who had contracted the disease and were assumed immune to live normal lives after passing an antibody test (17th measure).

Managers affirmed the value of adapting common areas such as elevators, garages, shared terraces, and swimming pools, and developing protocols to prevent virus spread (18th measure). Pools required the most adaptation to comply with regulations for new hygiene, distance, and reduced capacity (space lounge chairs farther apart, seal towels, disinfect chairs and hammocks after each use). Public meetings had to be limited to small numbers of people (19th measure) and geo-location or combined use of smartphone applications and social network data to monitor people in quarantine (20th measure). Geo-location received the least support among these suggestions.

4.2 Relevance managers attribute to strategic measures

Next, we examine the relevance hotel managers attribute to the *strategic measures* proposed. These measures were grouped into the following categories: "technology and collaboration," "organizational measures," "marketing," "customer additional benefits," "accommodation," and "cancelation." Table 12 summarizes the main results from evaluating the measures based on three levels of support: strongest support (measures from 1st-8th support level), strong support (9th-16th level), and medium support (17th-26th level). All measures were rated on a scale from 1 ("totally disagree") to 7 ("totally agree").

Technology and collaboration	Organizational measures	Marketing	Additional customer benefits	Accommodation	Cancelation
Permit online check-in/check-out (6.03, 8 th)	Create contingency plan including protocols and actions (6.48, 1 st)	Redesign advertising messages (6.19, 5 th)	Encourage direct booking through hotel website, offering exclusive advantages (6.47, 2 nd)	More flexible entry and exit times in accommodation (5.13, 22 nd)	More flexible non-refundable rates to avoid cancelations (6.13 , 6 th)
Minimize use of paper and digitalize activities (5.99, 9 th)	Develop plan to reduce and control operating costs (6.24, 3 rd)	Advertise on social networks) (5.94, 11 th)	Offer personalized customer service line (5.95, 10 th)	Provide customers safe transportation to accommodation (4.62, 25 th)	Improvefreecancelationterms(6.08, 7 th)
Actively collaborate with other agents in sector to launch joint communication campaigns (5.56, 17 th)	Develop plan to train staff in safety and hygiene (6.23, 4 th)	Invest in digital marketing, SEO position and brand image on metasearch engines (5.92, 12 th)	Offer customer additional benefits (5.75, 15 th)		
Adapt meeting and event facilities to support videoconferences and online congresses (5.38, 20 th)	Establish effective internal communication channels (5.87, 13 th)	Establish specific benefits for regular customers (5.86, 14 th)	Grant discounts on additional hotel services (4.75, 24 th)		
Collaborate with	Take responsibility	Design offers	Improve		

 Table 12: Strategic measures by level of support

local entities to	for health safety	and packages	customer's	
create unique	(5.47, 18 th)	oriented to	integral well-	
offers and		national market,	being (4.23, 26 th)	
packages aimed at		offering		
local public		additional		
$(5.29, 21^{st})$		benefits (5.65,		
		16 th)		
Provide 24-hour		Develop		
online customer		campaigns that		
service (5.00, 23 rd)		focus on local		
		audience and		
		expand them to		
		other segments		
		$(5.46, 19^{th})$		

 Notes:
 Mean score and ranking of support for measure in parentheses

 1st-8th measures (strongest support)
 9th-16th measures (strong support)

17th-26th measures (medium support)

The strategic measures that managers ranked 8th-highest in importance were: create contingency plan including protocols and actions (mean score: 6.48); encourage direct booking through hotel website, offering exclusive advantages (6.47); develop plan to reduce and control operating costs (6.24); develop plan to train staff in safety and hygiene (6.23); redesign advertising messages (6.19); provide greater flexibility in non-refundable rates to avoid cancelations (6.13); improve free cancelation terms (6.08); and permit online check-in/check-out (6.03).

Following recommendations of the World Health Organization and centers for disease control and prevention, numerous hotel chains (e.g., IHG, Marriot, Hyatt) have highlighted the need for contingency plans with protocols and actions (1st measure). Both staff and customers must be familiar with these practices and measures. It is also important to enhance flexibility and prioritize booking through the hotel website (2nd measure). Some chains allow customers to change or cancel any reservation up to 24 hours before arrival (e.g., Park Hotel group) and give welcome extras or reduced rates. Official hotel websites offer reservations with special online deals. Some hotels permit checking in/out online (or from a mobile application) (e.g., Hyatt, NH, Iberostar) to prevent waits, crowding, and interaction with staff (8th measure).

Managers also support developing plans for cost reduction and control (Leung and Lam, 2004; Lo et al., 2006). The first bankruptcies have already been announced in the hotel tourism sector. While maximum short-term cost reduction seemed a good measure initially, hotels must accept the new situation and define specific cost-saving plans (3rd measure). Faced with this unique situation, hotels must react quickly, reducing costs where possible while maintaining guest and employee safety. These measures require designing plans to train

staff in hygiene, safety, and protocols (4th measure). Teams must stick together and remain motivated. They must also be kept informed of the evolution of the business and the measures it adopts, and be involved in decisions about how to face COVID-19. Advertising messages must be tailored to both the crisis and consumer needs (5th measure) by focusing on customers' main concerns, such as steps the hotel has taken to protect them if they plan a future visit, or how to cancel or postpone without penalty if circumstances change. Communicating these messages fosters customer confidence, leading to better conversion.

As cancelations exert great pressure on hoteliers in cash flow and lost reservations, it is important that customers reschedule reservations for later in the year rather than cancel completely (6th measure). Such measures help hotels mitigate the effect of the COVID-19 crisis by retaining customers, albeit at a later date. Vouchers for non-refundable reservations and improved free cancelation are important for giving guests the opportunity to cancel without additional penalties if the health situation changes (7th measure).

Other highly-valued strategic measures involved technology use to minimize personal contact. For example, managers strongly supported the option of online check-in/check-out (8th measure). They also recognized the need to minimize paper use and digitalize activities by making room keys available on customers' cell phones or providing QR devices to access restaurant menus (9th measure). Advertising on social media (Facebook, YouTube, Instagram) is also an important part of any recovery strategy. Hotels can reach new and existing customers through YouTube, Display, and Facebook at relatively low cost and lay the foundation for faster recovery (11st measure). Similarly, maintaining investment in digital marketing, improving SEO positioning, reinforcing brand image on metasearch engines, and adapting content are essential (12th measure). Investing time in the hotel's SEO strategy will pay off in the short and long term. Through simple actions like updating meta tags and titles on the home page, hotels can send specific messages to users searching for their brand or services.

A personalized customer service line (10th measure) is important in preparing and managing stays. Information on local attractions, transportation, health care, and pre-arrival contacts lets customers know all measures taken, etc. It is better to offer additional benefits than to reduce prices, adding the difference in extras such as free entry to local attractions or a free bottle of wine per night of stay rather than reducing rates to an economical amount (13th measure). Excessively discounted rates hurts the business, requiring years of recovery. Some chains (e.g., Marriot, Meliá) find it essential (15th measure) to offer additional benefits to regular customers and create loyalty. These chains allow customers to pay at the establishment, accumulate double points on loyalty cards, or extend promotions without expiration dates. It is vital to orient offers and packages to the national market, with additional benefits (free children, breakfast included, etc.) and incentives to extend stays by including services such as free spa visits or upgrades to the next category (16th measure supported). Finally, it is important to establish effective internal communication channels and hold regular meetings (14th measure) to keep staff informed of the latest measures and keep morale high (Leung and Lam, 2004; Lo et al., 2006).

Managers showed medium-level of support for active collaboration with other agents in the sector (e.g., airlines, DMOs, hotels) to launch joint communication campaigns to reinforce the destination's image and improve customer confidence (17th measure). Respondents also emphasized the need to focus specific campaigns on local audiences that could later be expanded to other segments (19th measure supported). Collaboration with local entities (agencies, event organizers) is essential to create offers and packages aimed at local publics (closest demand) (21st measure).

Additionally, hotels must put someone in charge of health safety, an expert responsible for coordinating and implementing health and safety measures and designing employee training in safety protocols (18th measure). Safe transportation to the accommodation through airport and station pick-ups (avoiding public transport) and parking discounts (25th measure) give customers more flexible entry and exit times, while early or late check-out prevents customers from having to wait on the street or in common areas (22nd measure). Discounts can also encourage customers to use additional hotel services (e.g., restaurant, swimming pool) (24th measure), and specific services can be designed to improve customers' "integral" well-being (mindfulness, yoga, meditation sessions at the hotel) (26th measure). Beyond services, the hotel must have a technology system with 24-hour online customer service (23rd measure), including room service or minibar orders via mobile phone (digital concierge service through WhatsApp) or enhanced digital experience and improved technical infrastructure to support videoconferences and online conferences (20th measure).

5 Discussion and Conclusions

5.1 Discussion

Global tourism activity has been devastated by the COVID-19 pandemic, and its effects are highly likely to last longer for tourism than for other affected industries (Sigala, 2020). The pandemic rapidly transformed travel behavior and operation of tourism business. One of the sectors most affected, hotel business experienced a sharp rapid drop in demand, with drastically reduced occupancy rates and income. The unprecedented nature of this crisis is creating serious, highly complex challenges for the hospitality industry (Duarte-Alonso et al., 2020). Since tourism and hospitality are strategic due to their economic significance for countries like Spain, this study analyzed the relevance of different measures to help hotels to cope with the new situation and facilitate business recovery. Drawing on existing crisis management literature, we created a questionnaire with a list of general and specific measures by which hotels could face the "new normal" and asked an empirical sample of Spanish hotel managers to evaluate the measures.

The results revealed that managers prioritized some strategic measures related to the organization, marketing, customer benefits, and technology as facilitating recovery and adapting day-to-day business. At organizational level, managers highlighted the need to create contingency plans, implement cost reduction plans, and develop staff training programs. Marketing activities also required transformation through redesign of advertising messages, greater flexibility for customers to reduce cancelations, and direct booking from hotel websites to increase income. Additionally, technology had to be integrated into hotel operations to limit personal contact by facilitating online check-in/check-out, digitalizing business activities, and enhancing customer service through personalized communication channels.

The results provide hotel managers valuable ideas for adapting their firms through effective response strategies. Resilience requires firms' ability to adapt to change, learn from disruption, and look forward (Rittichainuwat et al., 2020). Our findings help hotels face current adversity and become more resilient. Various studies argue that the COVID-19 crisis can be a transformative opportunity. Businesses can not only recover tourism activity but enhance organizational resilience and improve adaptation to the new business environment (Filimonau et al., 2020; Melián-Alzola et al., 2020; Sigala, 2020). Our study has valuable

theoretical and practical implications to guide managers in reorienting their business process by developing innovative practices and becoming more resilient to face the "new normal" successfully.

5.2 Theoretical Implications

From a conceptual standpoint, this study contributes to the literature on crisis management in hotels by developing and testing a battery of measures that can be implemented to adjust day-to-day business to cope with the COVID-19 pandemic. This paper advances the literature on hotel management by examining Spanish hotels in a period of crisis and identifying patterns of best practices to face adversity, recover activity through innovation, and enhance organizational resilience.

We also advance the literature on entrepreneurial resilience, since hotels and tourism firms must self-renew to face the unstable, precarious situation of an unprecedented crisis (Jun et al., 2021; Sigala, 2020). This paper expands the literature on organizational resilience in hotels by identifying measures that can enhance hotel resilience and business transformation. The current situation reveals an urgent need to shift from crisis management to resilience-building to improve adaptive learning (Rittichainuwat et al., 2020). Although our proposed measures for mitigation and recovery focus on the hotel context, some measures can be adapted and implemented successfully in other tourism firms (restaurants, transport firms, etc.) to respond to the current scenario and enhance organizational resilience.

5.3 Practical Implications

Firstly, this paper has implications for hotel managers in providing list of measures to respond strategically to the COVID-19 pandemic. The final battery of items developed encompasses diverse measures, service adaptation, and marketing initiatives to guide hotel managers and foster their capability to innovate, use technology and social media, and connect and collaborate with stakeholders. These measures also help hotels enhance organizational resilience (Filimonau et al., 2020, Melián-Alzola et al., 2020; Roundy et al., 2017) and reduce the negative effect of COVID-19 on their business, customers, and employees.

The measures proposed (general and strategic for hotels) include specific practices for hotel activity and business processes—establishing a media communication strategy, implementing cost-cutting strategies,

screening staff and guests, cleaning and disinfecting, training staff in multi-tasking, encouraging holidays/unpaid leaves, establishing redundancy and layoff policies, reassuring customers, identifying new tourist needs, and providing virtual meeting facilities. Other measures involve partnership cooperation—booking hotels rooms as part-time location for small private classes, joining with restaurant or bars to offer customers meals or tapas on their room balconies or at their windows to maintain distance from other customers, collaborating with hospitals and preparing safe rooms where infected people can recover, seeking official assistance/collaborating with authorities, sharing information with partners and/or external agents, holding regular meetings, negotiating with tour operators, etc.

Secondly, the COVID-19 pandemic has shown that digital technologies enable telework that will continue in the foreseeable future (Chandee et al., 2020). For tourism and hotels, the connectivity permitted by telework requires that hotels develop explicit policies clarifying the work, connectivity, and availability expected of employees. Hotels should take a step-by-step approach, first establishing the rules of off-hours work communication and then implementing compensatory measures to support replenishing recovery activities, and finally initiating a culture change in digital technology use (Chandee et al., 2020). This paper recommends enhanced digital marketing for hotels to outsource some services and leave some to customers. It also promotes the role of digital infrastructures as critical sources of connection.

Finally, the new operating environment produced by COVID-19 requires hotels and their multisector agents to adopt new technologies and applications to manage large numbers of people in public spaces, and provide specialized sanitary supplies and applications to identify and manage people's profiles and health identity (Sigala, 2020) in order to strengthen the national health structure. These measures stimulate managers' and employees' technological competencies in hotels and sectors close to tourism--for instance, by encouraging remote work, virtual teams, and virtual leadership.

The Appendix provides a complete list of the general and strategic measures analyzed to guide managers in their day-to-day operations.

5.4 Limitations and Future Research

Although this study is up to date and develops significant insights, it has some limitations.

First, drawing on prior research, we chose general managers as key respondents because they have knowledge of the strategic variables analyzed and can reduce response bias (Podsakoff et al., 2003). Future studies could, however, include data from employees or other organizational stakeholders for fuller understanding of the phenomenon.

Second, the proposed battery of measures was ranked based on managers' perception (and the study was conducted immediately after establishments reopened in Spain in summer 2020). In the near future, it would be useful to examine empirically the impact of these measures on performance, drawing on multivariate techniques to determine their relevance more thoroughly.

Third, our sample was limited to Spanish hotels. Future research should analyze larger samples, preferably from other regions and destinations, to test whether the proposed measures are useful in other contexts.

Academic research on COVID-19's impact on tourism activity should investigate in greater depth the effects of lockdown on important variables such as employees' psychological, mental, and physical health, engagement, and working conditions (Jung et al., 2021; Sigala, 2020); the global economic effects of the recession; and increased operating costs of tourism services.

5.5 Conclusions

The COVID-19 outbreak is a sharp reminder that pandemics, like other rare catastrophes, have happened in the past and will continue to happen (Donthu and Gustafsson, 2020). Based on International Monetary Fund predictions, Spain's GDP will decrease 12.8% (below 0) in 2020 (IMF, 2020). The pandemic has especially affected Spain's tourism, one of its main industries supporting domestic growth. This study draws on a sample of 237 Spanish hotel managers to develop a battery of general and strategic measures useful for hotels to adapt their business to a COVID-19 scenario and determine the most significant measures. The resulting insights can guide managers to adapt their business to greater innovation and resilience.

6 References

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Items	For citizens at individual level					
GM1	Foster social distancing : Promote measures to create greater physical distance and avoid physical contact between people in the short term. In public places where physical distance is expected to be very difficult (e.g., beaches, downtown streets), specific measures should be implemented to limit capacity.					
GM2	Expedition of a "immunity passport or sanitary pass " so that people who have had the disease and are assumed to be immune can return to normal life after passing an antibody test.					
GM3	Adapt part of the hotel to isolate potential positive cases , providing these areas with medicines and proper hygiene conditions so the virus will not spread.					
GM4	Test employees for COVID-19 to avoid future contagion among them.					
	For citizens at social level					
GM5	Limit public meetings to small numbers of people.					
GM6	In the short term (after confinement) limit capacity of bars, cinemas, leisure centers, and clubs .					
GM7	In the short term (after confinement), limit capacity of restaurants and shopping centers .					
GM8	Cancel/postpone/reduce number at mass events , concerts, festivals, and sporting events with high concentrations of people. Sports events can be held behind closed doors.					
GM9	Continue promoting telework in companies where it is feasible and impose a limits on number of people in workplaces where physical attendance is necessary.					
GM10	Adapt common areas such as elevators, garages, shared terraces, and swimming pools, and develop protocols to prevent spread of the virus.					
	Health aspects					
GM11	Extend confinement period for the elderly or vulnerable (with certain pathologies) to protect them in the short term. Or establish very limited mobility .					
GM12	Strengthen national health structure.					
GM13	Train all hotel employees to attend positive cases that arise unexpectedly.					
GM14	Control customers and employees closely when they test positive for COVID-19.					
GM15	Provide specially prepared hygienic supplies in every room and in common areas (antibacterial and hygiene gel) for use whenever someone arrives or leaves these areas; set furniture at appropriate distance to help prevent outbreaks.					
	Health-hygiene aspect					
GM16	Promote specific measures to improve hygiene habits and make antibacterial gel stations widely available in companies, institutions, shops, and streets.					
GM17	Establish temperature controls to detect potentially infected people.					
GM18	Promote mandatory use of masks for all citizens (in open and closed spaces).					
	Prevention-control aspect					
GM19	Allow geo-location. Combine use of applications for Smartphones and social network data to monitor people in guarantine.					
GM20	Implement strict border control and build monitoring databases: health and temperature control of each traveler and classification using QR codes based on risk levels.					

Appendix 1: General measures to face "new normal" after COVID-19

Source: Developed by the authors.

Арр	endix 2: Strategic measures to facilitate recovery of hotel business during a COVID-19 stage
Items	Maintain investment in divited monketing
SM1	Maintain investment in digital marketing, improving SEO positioning and strengthening brand image
	Redesign advertising messages orienting them to new customer concerns to improve customer
SM2	confidence (reporting on protection rules, flexibility in reservations, etc.).
	Design specific campaigns focused on local audience (with specific advantages) and expand them to
SM3	other segments as demand increases (including content such as webinars and FAQs).
CM4	Promote advertising on social networks (Facebook, YouTube, Instagram), the medium that allows great
5M4	visibility at relatively low cost (prioritize audiovisual content such as images or videos).
SM2	Offer specific benefits for regular customers (loyalty club members), permit payment at establishment,
3113	double points on loyalty cards, extend promotions and expiration dates, etc.
	Design offers and packages oriented to national market, offering additional benefits (free children,
SM6	breakfast included), and provide incentives to extend stays: services such as free spa visits or upgrades
	to the next category.
	Reservations and price incentives
SM7	varies
	Provide more flexible non-refundable rates to avoid cancelations (e.g. allow client to reschedule
SM8	reservation for another date or exchange it for a voucher with no time limit.
	Encourage direct bookings through hotel website, offering exclusive advantages (special rates.
SM9	flexible hours, welcome details; reduced rate for health professionals to facilitate their holidays).
CM10	Instead of reducing prices, offer customers additional benefits (local gastronomy gifts, free admission
2M10	to nearby attractions, etc.).
	Value-added services
SM11	Offer personalized customer service line to prepare and manage stays: Provide information on local
	attractions, transportation, healthcare, pre-arrival contacts to inform customers of measures taken, etc.
SM12	Provide safe transportation to accommodation with pick-ups from airport and stations (avoiding public transport) or offer polying discounts
·	Offer groater flavibility on antry and avit times at accommodation allowing for early check in or late
SM13	check-out preventing customers from having to wait on the street or in common areas
	Design services to improve customers "integral" well-being , e.g., mindfulness, voga, meditation
SM14	sessions at the hotel.
CM1E	Offer clients and local population discounts to encourage them to use additional hotel services (e.g.,
31113	restaurant, swimming pool).
	Technology
SM16	Allow check-in/check-out online (or from mobile application), avoiding waits and crowding, and
	minimizing interaction with staff.
SM17	Provide 24-nour online customer service, with room service or minibar orders via mobile phone (digital consistence service through WhatsApp)
	Adapt meeting and event facilities to new security protocols enhancing digital experience and
SM18	strengthening technical infrastructure to support videoconferences and online congresses.
0140	Minimize use of paper and digitalize activities (e.g., room key available on cell phone, QR codes to
SM19	access restaurant menus).
	Collaboration
SM20	Collaborate with local entities (agencies, event organizers) to create unique offers and packages aimed
51-120	at local public (closest demand).
SM21	Actively collaborate with other agents in the sector (airlines, DMOs, other hotel companies) to launch
	joint communication campaigns to strengthen the destination's image and improve customer confidence.
SM22	Organizational including protocols and action measures and communicate it to all staff and
	customers
	Create person "in charge of health security," an expert responsible for coordinating and implementing
SM23	measures, and designing necessary employee training in protocols.
CM24	Design plan to train staff in safety and hygiene to help team adapt to the new scenario. Establish controls
31424	to ensure that new protocols are followed.
SM25	Establish effective internal communication channels and hold periodic face-to-face or virtual meetings
51425	with staff to keep them informed of latest measures and keep morale high.
SM26	Develop specific plan to reduce and control operating costs in the coming months.

Source: Developed by the authors.