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Crisis management in the Greek hotel industry in response to COVID-19 pandemic

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ABSTRACT

The aim of this research is to investigate crisis management practices in the hotel industry, in light of the new challenges that have emerged during COVID-19 pandemic. For this reason, an empirical research was conducted in leading hotels in Greece. The analysis generated five categories of crisis management practices that can be used by the industry for its recovery. Government practices and marketing practices are considered more important than operations practices, cost reduction practices and pricing practices; it has likewise been decided to be used more. We also found that there are differences in the importance and the extent of use of crisis management practices that have been decided by hoteliers, based on the characteristics of their hotels.

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Crisis management; management practices; COVID-19; Greece

Introduction

COVID-19 has triggered a chain of changes in tourism and especially in the hospitality industry (Ashikul et al., 2020; Rivera, 2020). It is not an exaggeration to say that the hospitality industry has been worst affected by COVID-19. Hospitality, which is based on the interaction of guests, services and many other factors, now bleeds by COVID-19 crisis (Rivera, 2020). Gossling et al. (2020) showed that COVID-19 damages hospitality in such a way, that losses mounted up to −90% on international accommodations in the first month of restrictions. Amid this unpredictable global situation and recognizing the damage caused to tourism, the European Commission announced (on 13 May 2020) a guidance focusing on criteria and recommendations that can help countries to ease restrictions to tourists and to evaluate the circumstances under which tourism procedures will be freed, according to health protocols (EU Commission, 2020). Indeed, impacts from epidemic/pandemic crises is not a national matter, but requires international awareness (Henderson & Ng, 2004). This is the reason why crisis must be managed carefully, and a high-educated and well-informed manager is needed to cope with such challenges (Benaben et al., 2016; Coombs, 1998; Naser et al., 2019).

Crisis management is a distinctive part of management theory that deals with businesses, organizations or a whole country in times of great disasters (Pardeep & Clark, 2009). Crisis management is about the preparation of hotels to survive before and after a crisis (Israeli et al., 2011). At the same time, it endows businesses with useful tools, which can help them to minimize negative impacts and to overcome a potential collapse (Benaben et al., 2016). Tse et al. (2006) created a list, in which they classified crises in specific categories. They stated that external crises are caused by natural and social

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environment and don't initiate within a business. Natural crises start either with natural phenomena, or are human-made (artificial). Examples are viruses, poisonings, tsunamis, floods etc.

In light of the above, this paper aims to investigate crisis management practices in the hospitality industry during COVID-19 pandemic, formulating the following research question: What are the perceptions of Hotel managers about the importance of management practices, as well as actions they have decided to take to respond to COVID-19 crisis? The structure of this paper is as follows. In the next section literature review is presented, while the third section includes the methodology. Results are presented in the fourth section and in the last one conclusions are drawn and guidelines for future research are discussed.

Literature review

Humanity has suffered from several pandemics in the recent past. Research on the effects of SARS (2003), MERS (2015), Ebola (2014) and Zika (2014, 2016) outbreaks to hotels give some examples of how epidemics can damage hotels and how crisis management practices can be applied (e.g., Menegaki, 2020). Financial damages led hotels and restaurants to reduce their staff, thus creating a tremendous social problem of unemployment (Lui-Lasters & Cahyanto, 2019; Shi & Li, 2017). Hong Kong restaurants had losses up to 3 billion in only a few months after the SARS crisis (Tse et al., 2006). Tse et al. (2006) studied how Hong Kong's hospitality industry confronted crisis caused by SARS-CoV-1. They discovered that crisis management practices that were mostly used were associated with dynamic marketing and cost cut practices. However, they highlighted the importance of the creation of a crisis management team and a pre-crisis plan.

Singapore, on the other hand, successfully coped with SARS and quickly turned the negative image into a positive one by applying a series of crisis management practices that put Singapore's tourism in growth orbit (Henderson & Ng, 2004; Singapore Tourism Board, 2003/2004). These practices were based on marketing and focused on domestic market, hotel's infrastructure, human resources management and especially government's support (e.g., Henderson & Ng, 2004). Singapore's hotels started new advertising campaigns and new collaborations with airlines and travel agencies. At the same time, hotels promoted high standards of hygiene and frequent temperature controls (Henderson & Ng, 2004). Another crisis initiated in 2005 with Avian Flu and created a health burden and financial constraints in the whole of Asia (Kuo et al., 2008).

Crisis management practices must, therefore, be evaluated, accounting for the importance of measures and then they should record the usage of them (Israeli, 2007; Israeli et al., 2011; Israeli & Reichel, 2003). Through this procedure, we gain knowledge on what practices should be applied in future crisis to avoid negative impacts as soon as possible.

Methodology

To answer our research question, a survey was conducted using a questionnaire for data collection. All research ethical standards, as defined by the General Data Protection Regulation (GDPR), were kept for this research. More specifically, the respondents were asked to state whether they wish to participate in the research and they were reassured that their anonymity will be maintained.

Prior to sending the questionnaire, a pilot test was performed on two academics and eight hotel managers. The pilot research revealed the importance of operations practices as techniques for crisis management. These comments were taken into account in the final configuration of the questionnaire regarding crisis management attributes. This generally contributes to the content validity (Hair et al., 2017). The questionnaire was accompanied by a cover letter, explaining the purpose of the research and was sent to the hotel managers. The survey was conducted online according to Dillman's (2000) guidelines. The research was carried out at the business unit level and not at the corporate level. It took place during the second fortnight of May 2020. At that time, all hotels in Greece were closed and their operations were suspended; it was also already announced that the

government would allow them to reopen on June 1st. One week after the original questionnaire was sent, a letter of reminder was sent to Hotel managers asking them to complete the questionnaire.

The sample includes the leading Greek hotels, as indicated by the number of beds and the total assets, according to ICAP's Directory 2018 (Gallup's subsidiary in Greece). We focused on large hotel units that have the resources to implement all management practices. The above criteria were selected, as they are commonly used to identify the largest companies in the industry (e.g., Pavlatos, 2015; Pavlatos & Paggios, 2009a). 1,430 hotels were finally identified that met the above criteria. 369 responses were received (response rate 26%). Of these, 142 hotels stated their intention not to operate this tourist season, while 10 said they had not yet made a final decision. Hotels that decided not to operate this year said this was due to financial viability (78%), to increased operating costs of health protocols (52%), to lack of resources (42%), to possible future destruction of the hotel brand in case of occurrence of Covid-19 incident (35%) and finally to the fact that the operation of the hotel is a high-risk decision (20%). 217 hotels said they had made a final decision to reopen. The answers of these hotels are analysed in the present research. The demographic data of the final sample (N = 217) are presented in Table 1.

Non-response bias was checked, by comparing the mean values of the survey items of the first 20% of responses received to the mean values of variables of the last 20% of responses received and no significant differences were found. In addition, using Chi-square statistics and t-tests, we did not find statistically significant differences between the number of beds, the stars' category, the type of business, the geographical area and whether a hotel belongs to a chain, so we came to the conclusion that our sample is representative of the population.

Finally, 31 crisis management practices were selected, which were categorized into five categories: Operations, Human Resources, Marketing, Maintenance and Government. The Operations category includes actions that the hotel can take to reduce the risk of a COVID19-case and to protect the safety and health of its customers. Human Resources practices refer to management actions that are mainly related to the reduction of labour costs. Marketing practices are associated with techniques to increase the occupancy of the hotel, which also incorporate the reduction of prices for services provided. The

Table 1. Characteristics of hotels that participated in the survey and managers who filled the questionnaires (N = 217).

	N	%
Panel A: Stars		
5 stars	76	35
4 stars	130	60
3 stars	11	5
Panel B: Geographical Area		
Athens	46	21
Crete	65	30
Aegean islands	62	28
Ionian islands	20	9
Macedonia	20	9
Other	4	2
Panel C: No of beds		
Up to 300	20	9
300 – 350	22	10
350–500	60	28
Over 500	115	53
Panel D: Hotel management status		
Private company	116	54
Member of chain	101	46
Panel E: Type of Hotel		
Resort	87	40
City hotel	130	60
Panel E: Job position		
Hotel manager	204	94
Assistant Hotel Manager	13	6

Maintenance category includes cost reduction techniques related to hotel maintenance issues, as well as reducing the number of services it provides. The Government category includes requests from the industry to the State for the provision of immediate liquidity, for the suspension of the payment of taxes, as well as requests to the banks for the reduction of borrowing costs.

The Categories Human Resources, Marketing, Maintenance and Government, have been used in previous research of crisis management practices in the tourism industry (e.g., Israeli, 2007; Israeli et al., 2011; Israeli & Reichel, 2003). However, we have adjusted them to meet the new crisis environment that COVID-19 has shaped in the hospitality industry. In this research, we added the category Operations, because according to the results from the pilot study, these techniques are deemed particularly important for the viability of companies in the industry, especially during these challenging times of COVID-10 pandemic. Table 2 presents the crisis management practices used.

Each crisis management practice was measured in two ways: it was measured on the level of importance and on the level of use (anticipated/future level of use). Importance was measured on

Table 2. Practices in crisis management during COVID-19 pandemic.

Category	Practice	Title
Operations	Use of new technologies that reduce the contact between guests and employees (e.g., applications for electronic check-out)	Oper_1
	Encourage guests to use room service free of charge	Oper_2
	Daily informing and communicating with customers through teleconferences by specialized personnel for hygiene and safety issues (e.g., at a specific time every day on room TVs)	Oper_3
	Forming and organizing a crisis management team for COVID-19 incidents and continuous training by specialized personnel	Oper_4
	Investment in new technologies that are not provided by the health protocols (e.g., electrostatic sprayers and infrared technology) in the common areas and in the rooms for the disinfection of surfaces and objects	Oper_5
Maintenance	Cost cuts by limiting hotel services	Main_1
	Cost cuts by postponing maintenance of the building (cosmetics)	Main_2
	Cost cuts by postponing maintenance to the engineering systems	Main_3
	Extending credit or postponing scheduled payments	Main_4
Human resources	Laying off employees to reduce labour force	HR_1
	Using unpaid vacation to reduce labour force	HR_2
	Reducing the number of workdays per week	HR_3
	Freezing pay rates	HR_4
	Replacing highly paid employees with new low-paid employees	HR_5
	Increased reliance on outsourcing	HR_6
	Employee shifts with the same people for the immediate tracking of each employee's contacts in the workplace in the event of a Covid-19 case	HR_7
Marketing	Marketing to domestic tourists in joint campaigns with local merchants (such as Visa and MasterCard)	MKT_1
	Marketing to domestic tourists that the hotel strictly adheres to all health protocols and provides maximum safety (safe brand)	MKT_2
	Marketing to foreign tourists that the hotel strictly adheres to all health protocols and provides maximum safety (safe brand)	MKT_3
	Price drop on special offers	MKT_4
	Reducing list price	MKT_5
	Marketing and promoting new products or services strictly adhering to all health protocols (family events, catering etc.)	MKT_6
	Digital Marketing tools (e.g., social media analytics, web site analytics, Google analytics)	MKT_7
	Marketing to domestic tourists with focus on specific attributes of the location	MKT_8
	Marketing to foreign tourists with specific focus on the location's distinctive features and relative safety	MKT_9
Government	Industry-wide demand for consumer assistance with current expenses that have increased due to the mandatory implementation of health protocols	Gov_1
	Industry-wide demand for a grace period on tax payments	Gov_2
	Industry-wide demand for a grace period on local tax (municipality) payments	Gov_3
	Request for employment (salary) subsidy for employees due to shift work in hotels (from the state)	Gov_4
	Industry demand for low-interest bank loans with low interest rate and long repayment period	Gov_5
	Request from the State to reduce VAT in accommodation and catering.	Gov_6

a Likert scale that ranges from 1: "to no important" to 7: "to very important". Likewise, the level of future use of each practice was measured on a Likert scale that takes values from 1: "to no extent" to 7: "to a great extent". The measurement of hospitality crisis management practices in importance and usage was based on previous research in hospitality crisis management (e.g., Israeli, 2007; Israeli et al., 2011; Israeli & Reichel, 2003). The level of importance measures how important each practice is considered for crisis management, while the extent of anticipated/future use measures the degree to which each practice has been decided by hotel managers to use.

In this survey, we also measured some of the attributes of hotels, because we wanted to investigate whether they differ in responses to the importance and use of management practices. We finally chose the following characteristics: the hotel category, the number of beds, the hotel management status and the type of hotel. These attributes were chosen, because they are considered to be some of the most important attributes used for their grouping, according to previous research in hospitality management (Pavlatos, 2015; Pavlatos & Paggios, 2009a; Sainaghi, 2011; Sainaghi et al., 2019).

Results

Based on our research question, a descriptive statistical analysis was performed to classify crisis management practices in terms of level of importance and degree of use. More specifically, exploratory factor analysis was used to group crisis management practices into categories and also correlations were performed to determine if management practices are independent or correlated with each other; moreover, t-tests were performed to investigate possible statistically significant differences in the degree of importance and degree of use of practices based on hotel characteristics. Statistical analyses were carried out using SPSS 23. The ranking of the level of importance and the level of future use of hospitality crisis management practices is presented in Table 3.

Table 3 shows that government and marketing practices rank in the first five places, as far as perceived importance and future usage are concerned. More particularly, the most important practice on both measures was the industry demand for low-interest bank loans with low interest rate and long repayment period with means of 6.07 and 5.91 and SDs of 1.04 and 1.25 for importance and usage, respectively (the government has already announced a rescue package for businesses with zero interest rate for the first 2 years and very low interest rate for another three). Other government practices (1, 2, and 6) rank in the first six places on both measures, while government subsidy for employees' salaries is ranked low (21 and 24 for importance and usage, respectively). Marketing to domestic and local tourism about hotel's safety seems to also play an important role, with means close to 6 for both importance and usage. Marketing practices that involve reducing prices and providing special offers are ranked low. This shows that hotels do not intend or cannot afford to reduce prices in order to attract more guests.

Another practice that ranks high (7^{th}) in both measures is operations-related and involves the use of new technologies to reduce contact between guests and employees (applications for remote check-out etc.). The formation of a crisis management team is 8^{th} in both measures, while it is important to note that as an HR practice employee's shifts in specific groups are ranked high, with a mean of above 5 in both measures. Another HR practice that is deemed important and will be used is the replacement of highly paid employees with new low-paid ones and the freeze of pay rates.

It seems that maintenance plans in terms of cost-cutting are perceived in total as less important and will be less used. This shows that the hotels plan to keep a high level of maintenance during this challenging period. Finally, as far as operation practices are concerned, hotel managers view the investment in new technologies as important (mean = 4.98, SD = 1.35), but their usage ranks 25^{th}. Another important operation practice is the regular contact with customers through teleconferencing to inform them about safety and hygienic issues (ranks 10^{th} on both measures). The least important practice of all is the encouragement of guests to use room service.

Table 3. Descriptive statistics and spearman correlations for practices' importance and usage in crisis management (N = 217).

	Importance			Usage			
Practice	Rank	Mean	S.D	Rank	Mean	S.D	Correlation [a]
Oper_1	7	5.34	1.24	7	5.21	1.02	0.53
Oper_2	31	3.38	1.12	31	3.25	1.03	0.43
Oper_3	10	5.12	1.59	10	4.98	1.19	0.61
Oper_4	8	5.24	1.58	8	5.20	1.69	0.60
Oper_5	13	4.98	1.35	25	4.18	1.54	0.38
Main_1	24	4.48	1.25	22	4.40	1.36	0.40
Main_2	29	4.03	1.03	29	3.98	1.58	0.24 [b]
Main_3	28	4.14	1.14	26	4.10	1.21	0.45
Main_4	25	4.25	1.78	23	4.20	1.54	0.28
HR_1	20	4.78	1.05	19	4.66	1.58	0.61
HR_2	22	4.65	1.52	21	4.44	1.67	0.48
HR_3	23	4.58	1.66	20	4.52	1.42	0.50
HR_4	18	4.85	1.10	11	4.94	1.37	0.37
HR_5	14	4.92	1.68	12	4.90	1.05	0.40
HR_6	30	4.03	1.28	29	3.89	1.26	0.24
HR_7	11	5.10	1.01	9	5.18	1.34	0.36
MKT_1	9	5.18	1.59	16	4.78	1.66	0.45
MKT_2	4	5.92	1.65	3	5.88	1.72	0.39
MKT_3	3	5.94	1.46	2	5.90	1.76	0.46
MKT_4	26	4.24	1.19	27	4.05	1.05	0.49
MKT_5	27	4.17	1.26	28	3.89	1.29	0.54
MKT_6	16	4.89	1.55	16	4.78	1.58	0.50
MKT_7	15	4.91	1.01	15	4.80	1.16	0.47
MKT_8	19	4.81	1.67	18	4.76	1.28	0.63
MKT_9	17	4.86	1.59	14	4.81	1.68	0.58
Gov_1	2	5.97	1.14	4	5.78	1.08	0.66
Gov_2	5	5.87	1.33	5	5.60	1.16	0.58
Gov_3	12	5.03	1.59	13	4.89	1.64	0.51
Gov_4	21	4.72	1.44	24	4.20	1.31	0.54
Gov_5	1	6.07	1.04	1	5.91	1.25	0.63
Gov_6	6	5.54	1.56	6	5.27	1.09	0.58

[a]all correlations are significant at 0.05 level
[b]no significant at 0.05 level

In Table 3 we also observe a statistically significant and positive correlation between the level of importance of each crisis management practice and the level of its future use, except for cost cuts by postponing maintenance of the building (cosmetics) which is not statistically significant at 0.05 level.

Following, in order to limit the number of variables, we performed an exploratory factor analysis for all crisis management practices for both importance and usage. We used maximum likelihood with Promax rotation to calculate the factor analyses and to extract all factors with eigenvalues>1 (Hair et al., 2017). We also used the Rotation method: Promax with Kaiser normalization (Hair et al., 2017). Cross-loadings below absolute 0.1 are suppressed. Table 4 presents the results of the exploratory factor analysis for the importance of crisis management practices. The analysis gave five factors that interpret 62.3%. 63.6 percent, 72.9%, 69.7% and 74.1% of the total variance, respectively. The first factor was called "Operations", which includes all variables related to the operation of the business, as well as the variable that concerns common staff shifts (HR_7). The second factor was called "Government" and involves all those practices concerning the demands of the industry from the State that will help the operation of hotels adjust to the new reality. The third factor (Marketing) includes the importance of marketing attributes that hotels consider important for crisis management. The fourth factor includes the practices of Human Resources and Maintenance. Because these variables are intended to reduce hotel operating cost, this factor was called "Cost Reduction". The fifth and final factor includes price reduction practices and is therefore called "Pricing".

For the resulting factors, we performed reliability and validity tests. ICRs values are greater than 0.8 in all five constructs, showing that there is satisfactory composite reliability (Hair et al., 2017). In addition, Cronbach's alpha for all factors are above 0.78, so we conclude that the constructs that have been formed have satisfactory reliability (Hair et al., 2017). Moreover, AVE for all constructs,

Table 4. Exploratory factors analysis, reliability and validity analysis for practices' importance (N = 217).

Items	1 Operations	2 Government	3 Marketing	4 Cost reduction	5 Pricing
Oper_1	0.772				
Oper_2	0.796				
Oper_3	0.814				
Oper_4	0.812				
Oper_5	0.849				
HR_7	0.791				
Gov_1		0.816			
Gov_2		0.821			
Gov_3		0.848			
Gov_4		0.852			
Gov_5		0.819			
Gov_6		0.792			
MKT_1			0.832		
MKT_2			0.814		
MKT_3			0.795		
MKT_6			0.762		
MKT_7			0.819		
MKT_8			0.799		
MKT_9			0.814		
HR_1				0.834	
HR_2				0.845	
HR_3				0.816	
HR_4				0.799	
HR_5				0.782	
HR_6				0.794	
Main_1				0.844	
Main_2				0.837	
Main_3				0.872	
Main_4				0.893	
MKT_4					0.824
MKT_5					0.833
Cronbach's alpha	0.82	0.83	0.81	0.85	0.89
Variance Extracted	62.3%	63.6%	72.9%	69.7%	74.1%
Average variance extracted (AVE)	0.641	0.675	0.616	0.623	0.704
Internal composite reliability (ICR)	0.826	0.842	0.812	0.826	0.802

We used maximum likelihood with Promax rotation to calculate the factor analyses and to extract all factors with eigenvalues >1; Rotation method: Promax with Kaiser normalization; Cross-loadings are suppressed; KMO = 0.905; Bartlett's test of sphericity: chi-square = 2325,10 Sig = 0.000.

had values greater than 0.50, which leads us to conclude that there is satisfactory internal reliability (Hulland, 1999). Also, all item loadings, which are incorporated in each of the five factors, are greater than 0.7, verifying that there is satisfactory individual item reliability (Hulland, 1999).

Table 5 presents the results of the exploratory factor analysis for the level of use of crisis management practices. The statistical analysis gave the same results as the variables concerning the level of importance. There were five factors: Operations, Government, Marketing, Cost reduction, Pricing, which include the same items, and interpret 64.5%. 66.8 percent, 69.3%, 70.1% and 72.2% of the total variance, respectively. Similarly, the reliability measurement indicators of the five constructs that were formed (Cronbach's alpha, AVE, ICR) are satisfactory and demonstrate the reliability of the measurements. To test discriminant validity (both for importance and for usage), we compared AVE for each construct with the squared correlations between the variables (Hair et al., 2017), as shown in Table 7. In all cases, AVEs were higher than the squared correlations, proving that there is acceptable discriminant validity.

Based on the results of the exploratory factor analysis, we ranked the constructs that emerged based on their mean value, both for the importance and for the use of crisis management practices (Table 6). We found that hotels rank as the most important and intend to use more government practices (Rank 1), followed by marketing practices (Rank 3). Operations' practices are ranked 3rd,

Table 5. Exploratory factors analysis, reliability and validity analysis for practices' usage (N = 217).

Items	1 Operations	2 Government	3 Marketing	4 Cost reduction	5 Pricing
Oper_1	0.814				
Oper_2	0.832				
Oper_3	0.819				
Oper_4	0.815				
Oper_5	0.839				
HR_7	0.824				
Gov_1		0.823			
Gov_2		0.831			
Gov_3		0.852			
Gov_4		0.828			
Gov_5		0.845			
Gov_6		0.798			
MKT_1			0.844		
MKT_2			0.819		
MKT_3			0.799		
MKT_6			0.801		
MKT_7			0.822		
MKT_8			0.786		
MKT_9			0.804		
HR_1				0.822	
HR_2				0.835	
HR_3				0.821	
HR_4				0.827	
HR_5				0.834	
HR_6				0.799	
Main_1				0.831	
Main_2				0.817	
Main_3				0.865	
Main_4				0.884	
MKT_4					0.877
MKT_5					0.856
Cronbach's alpha	0.84	0.86	0.82	0.83	0.84
Variance Extracted	64.5%	66.8%	69.3%	70.1%	72.2%
Average variance extracted (AVE)	0.655	0.663	0.624	0.619	0.712
Internal composite reliability (ICR)	0.833	0.848	0.8124	0.831	0.845

We used maximum likelihood with Promax rotation to calculate the factor analyses and to extract all factors with eigenvalues >1; Rotation method: Promax with Kaiser normalization; Cross-loadings are suppressed; KMO = 0.896; Bartlett's test of sphericity: chi-square = 2317,25 Sig = 0.001.

Table 6. Descriptive statistics for practices' importance and usage of the multi-item measures from exploratory factor analysis (N = 217).

	Importance			Usage		
Construct	Rank	Mean	S.D	Rank	Mean	S.D
Operations	3	4.86	1.37	3	4.67	1.29
Government	1	5.53	1.35	1	5.27	1.53
Marketing	2	5.21	1.50	2	5.10	1.32
Cost reduction	4	4.47	1.35	4	4.40	1.40
Pricing	5	4.20	1.22	5	3.97	1.48

while cost reduction ones are ranked 4th. In the last place, both in the level of importance and in the level of use, pricing practices were found.

Table 7 presents the correlations between the contrasts regarding the importance and usage of crisis management practices. Statistical analysis showed that among all constructs that measure the importance of crisis management practices, there are positive and statistically significant correlations. We came to the same conclusions for the usage of crisis management practices.

Table 7. Correlations of crisis management practices' importance and usage (N = 217).

	Operations	Government	Marketing	Cost reduction	Pricing
Panel A: Importance					
1.Operations	1				
2.Government	0.33*	1			
3.Marketing	0.30*	0.32*	1		
4.Cost reduction	0.26*	0.27*	0.15**	1	
5. Pricing	0.24*	0.39*	0.21*	0.28*	1
Panel B: Usage					
1.Operations	1				
2.Government	0.35*	1			
3.Marketing	0.28*	0.29*	1		
4.Cost reduction	0.19*	0.21*	0.19**	1	
5. Pricing	0.27*	0.33*	0.24*	0.24*	1

* indicates Correlations is significant at the.05level (2 tailed)
**indicates Correlations is significant at the.01 level (2 tailed)

Table 8 shows the differences in the level of importance and the level of use of hospitality crisis management practices, based on the characteristics of hotels. We found a statistically significant difference in the importance of operations practices (t-value = 2.875, p-value = 0.025) and their use (t-value = 2.801, p-value = 0.036) of 5-star hotels contrary to hotels that are not five stars. Statistically significant differences were also found in the importance (t-value = 2.401, p-value = 0.039) and in the use (t-value = 2.901, p-value = 0.023) of cost reduction practices, as well as in the importance (t-value = 2.205), p-value = 0.041) and the use (t-value = 2,972, p-value = 0.020) of pricing practices between five-star hotels and non-five star hotels. Consequently, we conclude that five-star hotels consider more important and will use more operations practices and less cost reduction practices and pricing attributes compared to non-five-star hotels.

Regarding the number of beds, the analysis showed that there are statistically significant differences between the importance (t-value = −2.874, p-value = 0.025) and the use (t-value = −3.012, p-value = 0.018) of marketing practices between hotels that have more than 500 beds compared to those that have less than 500 beds. Statistically significant differences were found between the importance (t-value = −1.954, p-value = 0.048) and the use (t-value = −2.958, p-value = 0.021) of pricing practices. We found that hotels with more than 500 beds deem more important and have decided to use more marketing practices and pricing practices than hotels with less than 500 beds. It should be noted that the classification of hotels into two groups (over 500 and under 500 beds) was based on the median of the number of beds.

Regarding hotel management status, statistical analysis showed that there are statistically significant differences between importance (t-value = −2.861, p-value = 0.028) and use (t-value = −3.041, p-value = 0.012) of operations practices between hotels that are private companies and those that belong to chains. Statistically significant differences were found between the importance (t-value = −3.142, p-value = 0.009) and the use (t-value = −3.221, p-value = 0.004) of marketing practices. We found that hotel chains consider more important and have decided to use more business practices and marketing practices than hotels that do not belong to a hotel chain.

As far as the type of hotels is concerned, the analysis showed that there are statistically significant differences between the importance (t-value = − 3.182, p-value = 0.007) and the use (t-value = −3.324, p-value = 0.001) of government practices among hotels that are city hotels compared to those that are resorts. This means that resort hotels consider more important and have decided to use government attributes more than city hotels.

Table 8. Differences in the importance and use of hospitality crisis management practices based on the characteristics of hotels (N = 217).

	Importance			Usage		
	Mean difference	t – value	Sig.	Mean difference	t – value	Sig.
Panel A: Stars (Group A: 5 stars, Group B: 4 & 3 stars)						
Operations	2.16	2.875	0.025	1.10	2.801	0.036
Government	1.14	0.655	0.225	0.14	0.654	0.226
Marketing	1.10	0.716	0.389	0.18	0.723	0.203
Cost reduction	1.82	2.401	0.039	1.18	2.901	0.023
Pricing	1.80	2.205	0.041	1.30	2.972	0.020
Panel B: No of beds (Group A: up to 500 beds, Group B: over 500 beds)						
Operations	−1.04	−0.826	0.636	−0.26	−1.022	0.145
Government	−1.06	−0.901	0.529	−0.08	−0.825	0.459
Marketing	−2.16	−2.874	0.025	−1.42	−3.012	0.018
Cost reduction	1.14	0.653	0.228	0.10	0.721	0.394
Pricing	−1.76	−1.954	0.048	−1.22	−2.958	0.021
Panel C: Hotel management status (Group A: private companies, Group B: member of chains)						
Operations	−2.12	−2.861	0.028	−1.43	−3.041	0.012
Government	1.10	0.721	0.394	0.08	0.824	0.458
Marketing	−2.56	−3.142	0.009	−1.88	−3.221	0.004
Cost reduction	1.12	0.601	0.312	0.20	1.101	0.189
Pricing	−1.10	−0.729	0.401	−0.08	−0.825	0.359
Panel D: Type of hotel (Group A: city hotels, Group B: resorts)						
Operations	−1.12	−0.600	0.314	−0.14	−0.648	0.232
Government	−2.62	−3.182	0.007	−1.90	−3.324	0.001
Marketing	−1.20	−0.999	0.196	−0.10	−0.716	0.389
Cost reduction	−1.16	−0.688	0.224	−0.18	−0.723	0.203
					(0.203)	
Pricing	−1.04	−0.901	0.529	−0.14	−0.653	0.230

Conclusion and implications

The purpose of this research is to investigate practices for crisis management in the Greek hotel industry in light of COVID-19 pandemic. This research highlights and explores five categories of crisis management practices that hotels consider important and have decided to apply to manage the crisis caused by COVID-19 pandemic. The first category of practices includes government practices. Hotel managers believe that the most important factor to help them cope with the new reality in the industry is to seek the aid of the State. Hotels need liquidity and cash flows to be able to cover their operating expenses, which will increase with the adherence to health protocols. Due to the low liquidity, hotel managers believe that the State should be given an extension in the payment of their tax liabilities. Applying for low-interest, long-term capital loans is the most important action a hotel can undertake to manage the crisis. These findings support previous research in hospitality crisis management that when a crisis is external, such as the COVID-19 pandemic, and not internal due to management failure, hotel managers seek State support to be able to continue to operate (e.g., Israeli, 2007; Israeli et al., 2011; Israeli & Reichel, 2003; Tse et al., 2006).

The second practices' category in terms of ranking is marketing practices. In order to be able to manage the new reality in the industry, hotels consider important and have decided to use marketing techniques (both in the domestic market and in the incoming tourism) that aim to convince potential customers that the hotel provides maximum safety to its guests and strictly adheres to all health protocols imposed by the State and by international health agencies (e.g., World Health Organization). These actions intend to provide a sense of safety to future customers, that hotels are "COVID-19 ready" to cope with a potential event, in order to increase their bookings. These findings confirm other findings from the literature of hospitality management that the most successful strategy to deal with disasters of the "physical environment", such as COVID-19 pandemic, is to react quickly in order to minimize the damage (Tse et al., 2006).

The third category of practices in terms of ranking, is operations attributes. According to their managers, hotels have decided to implement changes in their operations to ensure the hygiene and safety of their employees and customers, in addition to those changes imposed by health protocols. They aim to emphasize on the daily communication and information of their guests, to create a team for COVID-19 potential cases with continuous training, as well as to invest in new technologies (e.g., electronic check-in/out, infrared technology). The ultimate purpose of those practices is to increase the sense of security without altering the character of the hotel and without turning it into a "health facility". The first three categories of practices are strategies that aim to increase the effectiveness of hotel management and contribute to revenue enhancement (Israeli et al., 2011; Tse et al., 2006).

The fourth category in ranking is cost reduction practices. In order to effectively manage the crisis, hotels consider and have decided to reduce the cost of payroll and other staff expenses, as well as keep maintenance costs of their facilities low. By adopting cost reduction strategies, they will increase their efficiency and survive (Israeli, 2007). The latest in this series of practices is pricing attributes. Hotel managers consider less important and have decided not to discount on the prices of the services provided in a COVID-19 era. They believe that pricing policy is not the most important strategy that hotels can use to manage the crisis.

An important finding of the research is that there are statistically significant differences in the importance and use of hospitality crisis management practices based on the characteristics of hotels. The five-star hotels believe that they must continue to provide quality services by making the necessary changes in the way they operate, so that these are provided with maximum security. They have also decided to invest in new technologies that reduce the risk of COVID-19 incidents, with an emphasis on daily information and communication on health and safety issues with customers. For the five-star hotels, cost reduction, as well as price reduction strategies are not the most significant choices, they can make to manage the crisis, as those may affect the quality of their services.

Hotels with many beds aim to achieve full capacity in order to cover their high operating costs, so they will use marketing tools more and adopt pricing strategies more, in order to increase their revenue, compared to hotels that have fewer beds. Hotels belonging to a national or multinational chain will adopt rules of operation and marketing practices that will be made mandatory to them by the chain they belong to. These hotels will receive ready-made action plans for crisis management. Results also showed that hotel resorts consider more important and have decided to seek more State support than city hotels. Resorts have large facilities and high fixed costs (Pavlatos & Paggios, 2009b). This means that, in order to be able to reopen and operate in the new environment, they will be seeking funding, liquidity and the delay of tax payments and other liabilities, which will "ensure" their survival.

This research comes with some limitations. First, the research took place a few days before the Greek government announced its plan to reopen the hotels and release a full action plan in line with health protocols. For this reason, it was not possible to measure the actual degree of use of each practice, but the degree of use that was decided to be used. However, we believe that the short period between the opening of the hotels and the period the research was carried out, would not significantly change the actual use of the practices compared to the one already decided by the hotel management. Secondly, this research explores 31 hospitality management practices. In the future, additional actions that are not included in the present work could be studied, such as optimizing techniques and protocols with partners (tour operators and suppliers), encouraging hotel executives to work from home, as well as seeking government support to create and improve health structures on the islands.

This paper contributes to current research in the following ways. Firstly, for the first time to the best of our knowledge, it presents crisis management practices in the new environment that has been formed in hospitality after COVID-19 outbreak. This research highlights the tools, which can be used by hotel management to manage COVID-19 crisis. Managers can choose those tools that fit better to their organization, according to their characteristics (e.g., number of beds, stars,

management status, type of hotels). Second, this paper contributes to the scarce empirical literature, which studies crisis management and epidemics (e.g., SARS) in tourism and hospitality industry (e.g., hotels, restaurants, airlines, cruises). Thirdly, this paper is different from others in hospitality crisis management in than it has incorporated a new practice category, i.e. operations practices, which are about cleaning, health and safety etc. and are going to play an important role in managing hospitality industry in COVID-19 era. Finally, this paper is one of the first academic efforts that examine hospitality crisis management in Greece.

This research may have some managerial implications for hospitality executives. More specifically, it presents an action plan that hospitality executives can use to manage the changes that COVID-19 has brought; this plan can be adapted to their characteristics (e.g., stars, no. of beds, type of hotel, management status etc.). In addition, this work presents an action plan that could be implemented in future external or internal crises in hospitality, so in this way, it can trigger future research. For example, future research initiatives could be to investigate hospitality crisis management practices in other countries and explore possible differences with the Greek environment. Moreover, another area of exploration could be the impact and effectiveness of the use of crisis management practices on hotel performance. Investigating crisis management practices in other sectors of tourism and hospitality, such as restaurants, airlines, shipping, cruises, and identifying potential differences with hotels would be beneficial.

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