Crisis Management Practices in South Africa: Hotel Industry Responses to the COVID-19 Crisis

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Abstract
The COVID-19 pandemic has not only had a significant impact on public health, but it has also severely affected the hotel industry. This study examines crisis management practices in the hotel industry in South Africa during the COVID-19 crisis. The time scope of the research concerns the second wave of the COVID-19 pandemic in the period from May 2021 to July 2021. The study employs the Importance-Performance Analysis framework to evaluate the use and importance that hoteliers assign to different crisis management practices. The analysis is based on a list of crisis management practices that belong to five categories: *human resources, marketing, hotel maintenance, governmental assistance and innovation*. Apart from seeking government support, the findings reveal that hotels have also embraced innovative strategies and cost-cutting activities to mitigate COVID impacts. However, considering the uniqueness of the COVID-19 crisis, these practices differ from other practices implemented during previous crises. Therefore, hotels should not rely on practices from other type of crises because crisis situations differ. Theoretical and practical implications are discussed.
Keywords: COVID-19, Crisis Management, Hotels, Importance-Performance Analysis, South-Africa

Introduction
The COVID-19 pandemic has not only had a significant impact on public health, but it has also severely affected one of the linchpins of the global economy – the tourism industry (Jiang & Wen, 2020). The hotel subsector being part of the tourism industry, has been one of the hardest hit subsectors of the tourism industry (Hoisington, 2020). On one hand, the financial insecurity caused by the crisis has meant fewer people are booking holidays, resulting in most hotels experiencing low occupancies and some being ordered to close. On the other hand, hotels have substantial fixed costs that cannot be easily varied during a downturn. Consequently, the pandemic has forced hotels to adjust their daily operations by trading-off

traditional practices with fundamental practices that are salient to business survival (Jiang & Wen, 2020).

Unfortunately, despite the COVID-19 crisis being a popular subject in the public discourse, it is still not well understood in the academic discourse. To date, the COVID-19 crisis is viewed primarily through a public health lens and only gradually is the academic discourse focusing attention on the economic impacts of the pandemic. In addition, it has been noted that current literature on crisis management in hospitality lacks a robust conceptual framework which hotels can use as a reference framework during crisis situations (Israeli & Reichel, 2003).

Most of the studies appear rather *ad hoc* and fragmented by presenting various issues in different contexts (Israeli et al., 2011). As a consequence, the industry's dealings with crisis situations have been portrayed in the emergent through disjointed literature on hotel crisis management as a reactive. Such a response is, however, seen as lacking the ability to effectively respond to crises. Given the increasing frequency of crises impacting on hotels in recent times, the need for robust conceptual framework of management practices is necessary.

Hence, the purpose of this article is to identify effective actions taken by the hotel industry as part of crisis management during the COVID-19 pandemic. The following research question was therefore posed: What hotel activities are effective during a crisis caused by an epidemic? To the best of the author's knowledge, it is the first empirical study that addresses the response of the hotel industry to the COVID-19 crisis. The findings may provide timely implications that can serve as a reference for other hotels who may be inflicted with a similar crisis.

Literature Review
Crisis Management and Classification
A crisis is defined as a low-probability, high-impact event that threatens the viability of the organization, and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly (Tse et al., 2006). As such, crisis management involves intervention in the unfolding of a crisis to prevent the situation deteriorating further or, if this is not possible, to minimise the damage caused and assist recovery and the return to the status quo (Rosenthal & Pijnenburg, 1990). Crisis management practices serve as a cushion in times of crisis.

However, there is a need to understand the classification of crises because crisis classification determines management practices. According to Tse et al (2006), how crises are classified is ultimately a question of semantics. For example, crises are generally classified by their nature either as natural (earthquakes, virus/bacteria) or man-made (terrorist events). Crises can also be classified by the environment as either physical, human or social environment. Physical environment crises involve the natural disaster (e.g, Earthquake) or Technological failure (e.g, failure of food processing system causing widespread food contamination). As an external factor, physical environmental conditions and technological failures are the least controllable by an organisation. Hotels can only react passively to large-scale hurricanes or other natural phenomenon.

Crises of the human environment involve confrontations (e.g. labour strike or group boycotts) whilst crises in the social environment involves malevolence (e.g. terrorists attack). Crises of the social environment are caused by human deeds (Rosenthal & Pijnenburg, 1990). Acts of malevolence are examples of crises of the social environment, which are extremely disruptive to a firm's business. Crises can also be categorised on a scale spectrum that ranges from local through to global crises. Therefore, crisis classification is useful because the importance and usage of practices are dependent on the type of crisis in question (Tse et al., 2006).

Crisis Management Practices in Hotels

The current literature on crisis management mostly focuses on general prescriptive models (practices) which provide general guidelines for coping with different crisis situations such as terrorism, health-epidemic crisis and natural disasters (Baxter & Bowen, 2004). Borrowing from the generic crisis management literature, Barton (1994) presented general guidelines for managerial preparations required in times of crisis. Ulmer and Sellnow (2000) provided a case study based on historical and ethnical analysis in presenting the crisis on a restaurant chain. Consequently, Ritchie (2003) challenged researchers to develop a holistic framework on crisis management practices in tourism, as tourism crisis management can be vastly improved through application of crisis and disaster theories and concepts from other disciplines.

Responding to this call, Israeli and Reichel (2003), developed a model to evaluate crisis management practices focusing on two main factors: first, businesses realization of the measures that can be implemented in periods of crisis and second, the level of usage for each of these measures. Israeli et al (2011) replicated the list in a study of crisis management in the Indian luxury hotel sector, and Israeli (2007) modified this list for the restaurant industry. Okumus and Karamustafa (2005) used a similar list of commonly-known, macro-level, hospitality industry practices. The list of practices in all the aforementioned studies contains four main categories: human resources, marketing, infrastructure maintenance and governmental or external assistance.

The *human resources* category included common practice that hotel managers would consider to limit the number of employees or to limit the amount of time that employees work. Practices aimed at modifying the labour force by replacing older employees with younger employees, and outsourcing some labour were also included. The *marketing* category included practices of increasing marketing to domestic tourists by offering them specific incentives and marketing to foreign tourists by highlighting specific features or by emphasizing the location's relative safety. In the *maintenance* category, practices included postponement of scheduled building and less-visible engineering systems maintenance. Financial practices of maintaining debt were also included. Finally, in the *government* category, practices included requests for government support through tax deferral or extending grace periods on certain payments. Another potential practice may include noticeable protests as a tool for gaining the interest of the government. Protests against the government, therefore, was included in the practices list (Table 1).

Table 1
List of crisis management practices

Theme	Practice
Human resources	Laying off employees to reduce labour force
	Using unpaid vacation to reduce labour force
	Reducing the number of workdays per week
	Freezing pay rates
	Replacing highly paid employees with new low paid employees
	Increased reliance on outsourcing
Marketing	Marketing to domestic tourists in joint campaigns with local merchants (such as Visa and MasterCard)
	Marketing to domestic tourists with focus on specific attributes of the location
	Price drop on special offers
	Reducing list price
	Marketing to foreign tourists with specific focus on the location's distinctive features and relative safety
	Marketing and promoting new products or services (family events, catering)
	Marketing to new segments
Maintenance	Cost cuts by limiting hotel services
	Cost cuts by postponing maintenance of the building (cosmetics)
	Cost cuts by postponing maintenance to the engineering systems
	Extending credit or postponing scheduled payments
Government	Organized protest against the lack of government support
	Industry-wide demand for governmental assistance with current expenses
	Industry-wide demand for a grace period on tax payments
	Industry-wide demand for a grace period on local tax (municipality) payments

Hotel Responses to Crises

Although several studies have examined crisis management practices from a hospitality perspective, there is no consensus on how to manage a crisis. Furthermore, the association between spatial context and catastrophic event in the literature on crisis management focuses on crises on particular geographic locations. For instance, Asia appears to be taking centre stage with the discussion ensuing the SARS pandemic. In this vein, Chien and Law (2003) found cost cutting measures mainly in *human resources and maintenance* to be the main practices used by hotels during the SARS crisis in Hong Kong. Kim et al (2005), found *human resources and maintenance practices* to be the main practices used by Korean hotels during the SARS crisis whilst Lo et al (2006), found *innovation, human resources, maintenance and government practices* to be the main practices used by hotels in Hong Kong during the 2003 SARS pandemic. Israeli et al (2011), evaluated the importance and usage of crisis management practices in Indian luxury hotels. Their results revealed that crisis management practices used by hotels were different to practices believed to be important by managers. Consequently, whilst *government support and marketing practices* were considered important, only cost-cutting strategies were used.

Terrorism and political instability also appear to be a popular topic with traditional hot spots such as Egypt and Israel, receiving particular attention. As such, Salman et al (2017), investigated crisis management practices in hotels in Egypt during the Arab Spring and concluded that the key to survival during a crisis is to for hotels to redesign their *marketing strategies* by devising a marketing mix that can at least sustain business flow during a crisis. Similarly, Israeli and Reichel (2003) evaluated crisis management practices for hotels in Israel in times of crisis and found *human resources and government practices* as the two response strategies used by most hotels.

Following September 11 as a key crisis, the US is also frequently used as a vehicle to discuss crisis management in tourism. As such, Taylor and Enz (2002) investigated hotel practices during the 9/11 terrorist attacks in the US in 2001 and found *human resources and marketing practices* to be the most important practices cited by most hotel managers. These authors argued that for hotels to survive during a crisis resources and attention should be diverted from international marketing to local marketing.

Europe also appears to be taking centre stage with the discussions around the financial crisis during different periods. For example, Alonso-Almeida and Bremser (2013) examined the strategic response of the Spanish hospitality sector to the financial crisis and found *human resources, maintenance and marketing practices* as the common strategies used by most hotels. In another study, Israeli et al (2018), compared crisis management practices of hotels in Turkey with practices in Israel and India and found *marketing and human resources practices* to be common strategies in all countries.

Despite the existence of substantial literature pertinent to crisis management, three apparent research gaps are still identified. First, some studies are specific to geographical areas and thus lack generalizability beyond these contexts. Second, most studies did not focus on specific micro level crisis management practices in the hospitality industry (besides Israeli & Reichel, 2003; Israeli, 2007) but general macro-level practices in the hospitality industry and cannot be applied in the current crisis.

Third, and more critically, most research on crisis management practices is primarily directed to violence activities relevant to the tourism industry whilst natural disasters have received less attention. Unfortunately, different types of catastrophes bring distinct industry consequences hence crisis management strategies have to be positioned in the context of the respective crisis. As Ritchie et al (2004: 202), note 'all crises are different and hotels need to tailor responses to individual crisis.'

Importance-Performance Analysis (IPA) Model

The importance-performance analysis (IPA) technique is a powerful evaluation tool for practitioners and academics to find out attributes that are doing well and attributes that need to be improved, which require actions immediately. When employed to study crisis management practices the IPA model is capable of evaluating what managers define as important crisis management practices and also what practices managers elect to take in crisis situations (Israeli & Reichel, 2003). Since the general guideline for managerial decisions is to match practice importance and performance (usage in the current study) in order to be effective, the IPA model evaluates managerial practices by ranking them from slightly important to extremely important, whilst performance evaluates the same practices by ranking managerial performance of these practices using a scale ranging from fair to excellent (Israeli, 2007).

An attractive and interesting feature of the IPA model is that the results may be graphically displayed on a two-dimensional grid yielding four quadrants (Figure 1) that list the main categories and provide specific managerial recommendations. By identifying managers' importance and usage of practices, hoteliers are better able to prioritise tasks, allocate their resources and develop tailor-made crisis management strategies.

Q4: Possible overkill	Q1: Keep up the good work
Q3: Low priority	Q2: Concentrate here

Performance (Usage) (vertical axis) — **Importance** (horizontal axis)

Figure 1: Quadrant definitions

Attributes located in Quadrant I (both usage and importance are high) are major strengths and indicate opportunities for achieving or maintaining competitive advantage. The management scheme for this quadrant is "keep up the good work".

Attributes located in Quadrant II (usage is low and importance is high) are major weaknesses and require immediate attention for improvement. The management for this scheme for this quadrant is "concentrate here". Attributes in Quadrant III (usage and importance are low) are minor weaknesses and do not require additional effort. The management scheme for this quadrant is "low priority".

Attributes located in Quadrant IV (usage is high and importance is low) are minor strengths and indicate that business resources committed to these attributes would be overkill and should be deployed elsewhere. The management scheme for this quadrant is "possible overkill". Consequently, the following hypotheses have been set:

H1: There is a strong positive correlation between the importance and usage level of a practice,

H2: There is a consistent relationship between factors for importance and usage of practices, and

H3: There is a significant difference in importance and usage of practice between budget and luxury hotels.

Study Design and Data Collection
Instrument Development, Piloting and Testing
The study uses Israeli and Reichel's (2003) crisis management framework as a theoretical lens to design the research questionnaire. As the purpose of the study was to understand the strategies, and perspectives of hotels during the COVID-19 crisis, it was necessary to obtain information about the thoughts and views of hotel managers. The research was conducted from May 2021 to July 2021.A questionnaire-based survey was deemed the best possible strategy to collect data and obtain an "understanding" about hotels' reactions to the COVID-19 crisis. It can help collection of data from a larger sample in a shorter time. Consequently, a quantitative methodology was deemed appropriate to collect data and extend existing theory (Ritchie, 2003).

Initially, the questionnaire contained four-dimensional construct of crisis management practices– marketing, hotel maintenance, human resources and governmental assistance and 21-items for measuring the level of importance and usage of each practice. These practices and items have been used by several authors (Okumus & Karamustafa, 2005; Israeli et al., 2011) in previous studies of crisis management practices. The practices were used to build a questionnaire that was made up of two parts. The first part examined the level of importance managers assigned to each of the 21 practices using a Likert scale of 1—least important to 7—most important. The second part included questions about the level of actual use for each of the 21 crisis management practices using the same Likert scale ranging from 1—extensively used to 7—rarely used.

Initial piloting with five focus groups in a local hotel involved instrument evaluation of the Israeli and Reichel (2003) 21 original questions, particularly around their local relevance. Across-the board modification to item terminology made the revised instrument context and setting specific in its entirety, with necessary tweaking for certain items from the original framework. One item with three attributes relating to Innovation was added as a consequence of focus groups' input, giving a total of five crisis management practices and 24 items. Consequently, it was included in the questionnaire. This resulted in 24 paired items pertaining to both usage and importance.

Participant Selection

Before undertaking the substantive study, the updated survey instrument was tested on eight hotel General Managers, who in turn provided feedback, alongside their survey response. Only minor amendments were made to the questionnaire. A total of 419 hotels were targeted in five cities in South Africa, namely, Nelspruit, Johannesburg, East London, Cape Town and Durban. Across the participating hotels, 419 questionnaires specifically directed to potential respondents who held a management position of department head or higher were sent by e-mail in May resulting in 308 completed returns, representing participation of 72 per cent.

Methods of Analysis

It was essential to identify the underlying structure of the data collected in this study. This reflects the application of a study instrument amended in terms of wording and item content deployed in a hotel setting. To determine this, an exploratory factor analysis (EFA) was undertaken. Central to the application of EFA is that no a priori hypotheses are assumed. Consequently, the approach permits theory development rather than the evaluation of an assumed or accepted model.

This EFA was undertaken separately for the items pertaining to importance and usage. The methods of factor analysis undertaken in both cases involved Principal Axis Factoring. Factor extraction was achieved using the accepted and standard Kaiser criterion in the first instance. This was then subject to iteration given the rotated solutions generated. Varimax rotation provided the rotated solutions for both importance and usage factors comprising statistically independent factors in both cases (Field, 2000). For both the importance and usage data, an evaluation of the internal reliability of the identified factors was made using the Cronbach's α coefficients for each factor individually (Bryman & Cramer, 1994).

In both applications of the EFA, the final rotated factors were assessed for their key loaded variables. The factor analysis was re-run on an individual factor basis to provide individual factors saved as a regression model. In turn, each of these was re-scaled using a weighted mean

and pooled standard deviation determined from each of the key loaded items. These re-scaled factors were used in the analysis to be presented.

The overall measure for both importance and usage is provided separately by:

Function (importance or usage) = $[X_1 + X_2 + \ldots\ldots\ldots X_n]/_n$

The overall importance-usage relationship was assessed by means of correlation analysis. This was accompanied by evaluation of the correlation between constituent factor components and pairwise evaluation for differences using the relevant *t*-test. Differences between importance and usage by hotel type (i.e. budget and luxury hotels) were assessed by *t*-test or one-way ANOVA, as appropriate. For each of these tests, significance was presented at the standard levels for business research, i.e. 5, 1 and 0.1 per cent levels of significance. The importance-usage relationship was presented graphically by means of simple quadrant analysis for the factors. By doing so, the importance of each practice and any gap between usage and importance was identified.

Analysis of the relationship between the variables was performed using correlation analysis. The analysis of intergroup differences was performed using the non-parametric Kruskal-Wallis H test and the Mann-Whitney U test. All calculations were made with Statistica 13.0 software.

Results
Usage Items and Scale Development
The 24 items measuring usage exhibited a high level of potential for being factorised, with a Kaiser-Meyer-Olkin statistic of value 0.953, and a highly significant result pertaining to Bartlett's test of sphericity (χ^2=15 735.101; *df*=469; *p*=0.000). The EFA undertaken suggested no serious issues regarding low levels of communality. However, on the first iteration of the analysis, the loadings on the two factors extracted made interpretation somewhat difficult (as prescribed by the Kaiser criterion). Therefore, the factor analysis was re-run to impose the extraction of five factors consistent with the literature assessed and the number of potential factors as identified by the original scale set.

The second iteration of the factor analysis resulted in a solution involving the identification of five statistically independent factors, whose rotated solution provided 52.07 per cent of explained variance. A *post-hoc* evaluation of the five factors using Cronbach's α coefficients resulted in a range of values from 0.747 to 0.871 inclusive. Three out of five α coefficients had values in excess of 0.8, thus suggesting high levels of internal reliability (Bryman & Cramer, 1994). Table 2 provides the details.

Table 2

Results of factor analysis and definition of the usage measures

Factor	Rotation -% of variance	Factor definition and loaded items (rotated solution)	Loadings -rotated solution	Communalities-extraction	Reliability coefficient	Equivalent important scale
F1	8.274	**Human resources**			0.871	1
		Laying off employees to reduce labour force	0.802	0.787		
		Using unpaid vacation to reduce labour force	0.791	0.762		
		Reducing the number of workdays per week	0.673	0.725		
		Freezing pay rates	0.668	0.759		
		Replacing highly paid employees with new low paid employees	0.656	0.699		
		Increased reliance on outsourcing	0.643	0.650		
F2	11.941	**Marketing**			0.864	4
		Marketing to domestic tourists in joint campaigns with local merchants (such as Visa and MasterCard)	0.782	0.636		
		Marketing to domestic tourists with focus on specific attributes of the location	0.774	0.648		
		Price drop on special offers	0.735	0.628		
		Reducing price list	0.728	0.634		
		Marketing to foreign tourists with specific focus on the location's distinctive features and relative safety	0.589	0.471		
		Marketing and promoting new products or services (family events, catering)	0.598	0.555		
		Marketing to new segments	0.567	0.492		
F3	8.029	**Maintenance**			0.747	3
		Cost cuts by limiting hotel services	0.764	0.778		
		Cost cuts by postponing maintenance of the building (cosmetics)	0.752	0.707		
		Cost cuts by postponing maintenance to the engineering systems	0.649	0.756		
		Extending credit or postponing scheduled payments	0.626	0.699		

F4	13.963	**Government**			0.866	5
		Organized protest against the lack of government support	0.681	0.745		
		Industry-wide demand for governmental assistance with current expenses	0.733	0.653		
		Industry-wide demand for a grace period on tax payments	0.699	0.690		
		Industry-wide demand for a grace period on local tax (municipality) payments	0.650	0.653		
F5	9.866	**Innovation**			0.759	2
		Artificial intelligence (AI)	0.797	0.789		
		Virtual reality (VR) technology	0.762	0.690		
		Using big data for customer service	0.729	0.641		

For the factors identified in the explanation of usage, three relate to effectiveness (or revenue enhancement) (factors 2, 4 and 5) and factors one and three, respectively, represented efficiency (or cost reduction). The most prominent factor extracted related to Human resources practices, followed by the factor pertaining to Innovation practices exhibit consistency of prominence with that realised for importance.

Importance Items and Scale Development
Like the suite of scales assessing usage, the 24 items evaluating students' level of importance, were highly factorisable, as evidenced by the Kaiser-Meyer-Olkin statistic of 0.953, and a highly significant result for Bartlett's test of sphericity (χ^2=16 409.330; df=449; p=0.000). The analysis also pointed to an absence of severe problems around low levels of communality. The first iteration of the analysis resulted in loadings on the two factors extracted based on the Kaiser criterion. Again, focussing on only two factors made interpretation difficult to undertake. As for the usage data, the factor analysis was re-run to consider various alternatives, finally imposing the extraction of five factors.

The next iteration of the factor analysis yielded a solution comprising five statistically independent factors, the rotated solution providing 56.84 per cent of explained variance (see Table 3). Post-hoc assessment of the five presented factors by means of Cronbach's α coefficients gave a range of values from 0.753 to 0.890 inclusive. For these factors representing importance, four out of five α coefficients have a value exceeding 0.8. This pointed to internal reliability at a high and acceptable level.

Table 3
Results of factor analysis and definition of the importance measures

Factor	Rotation -% of variance	Factor definition and loaded items (rotated solution)	Loadings -rotated solution	Communalities-extraction	Reliability coefficient	Equivalent important scale
F1	8.998	**Human resources**			0.897	3
		Laying off employees to reduce labour force	0.651	0.749		

		Using unpaid vacation to reduce labour force	0.655	0.682		
		Reducing the number of workdays per week	0.646	0.753		
		Freezing pay rates	0.638	0.598		
		Replacing highly paid employees with new low paid employees	0.589	0.471		
		Increased reliance on outsourcing	0.572	0.660		
F2	12.405	**Marketing**			0.890	5
		Marketing to domestic tourists in joint campaigns with local merchants (such as Visa and MasterCard)	0.777	0.729		
		Marketing to domestic tourists with focus on specific attributes of the location	0.762	0.716		
		Price drop on special offers	0.656	0.531		
		Reducing price list	0.643	0.507		
		Marketing to foreign tourists with specific focus on the location's distinctive features and relative safety	0.616	0.491		
		Marketing and promoting new products or services (family events, catering)	0.704	0.526		
		Marketing to new segments	0.678	0.650		
F3	7.906	**Maintenance**			0.886	4
		Cost cuts by limiting hotel services	0.728	0.733		
		Cost cuts by postponing maintenance of the building (cosmetics)	0.711	0.729		
		Cost cuts by postponing maintenance to the engineering systems	0.489	0.682		
		Extending credit or postponing scheduled payments	0.453	0.709		
F4	14.792	**Government**			0.877	1
		Organized protest against the lack of government support	0.633	0.493		
		Industry-wide demand for governmental assistance with current expenses	0.609	0.744		
		Industry-wide demand for a grace period on tax payments	0.705	0.783		
		Industry-wide demand for a grace period on local tax (municipality) payments	0.684	0.693		

F5	12.740	**Innovation**				0.753	2
		Artificial intelligence (AI)	0.666	0.687			
		Virtual reality (VR) technology	0.701	0.704			
		Using big data for customer service	0.625	0.606			

Unlike the analysis of the factors identified for usage and presented above, the most dominant factor related to importance is Government support. This represents one of the three factors representing effectiveness, the other two being factors 2 and 5, which relates to Marketing and Innovation, respectively. These factors are clearly measures to improve effectiveness, because they can assist in increasing the volume of potential business transactions and therefore support the attainment of the organization's most basic and significant goals.

Analysis of the factors presented in Tables 2 and 3 indicate a high level of commonality in the loading of the original variables to the extracted factors for both usage and importance. This affords both commonality of factor definitions to be provided and correspondingly, a high level of direct one-to-one comparison between the respective measures of usage and importance. In allowing this, it offers an opportunity to highlight specific areas for priority consideration in mitigating impact of the COVID crisis.

This direct importance-usage measurement at a "macro" factor rather than "micro" item level has the potential through the IPA analysis to permit the pinpointing of areas of priority to mitigate impact by increasing usage of practices. A large number of key usage indicators, delivered by a suite of 24 individual items or even greater numbers in previous studies, means it can be difficult to address attributes in isolation.

In evaluating the typical levels of importance placed on various crisis management practices, hotel managers face a key priority-related challenge. Four out of five factors identified exhibit a mean score in excess of 5.0 and were therefore deemed important. The standout area of greatest importance in a relative sense is factor 4 – Government support with a mean score of 6.35, as presented in Table 4.

Table 4
Paired t-tests

Theme	Practice	Means		Mean diff.	SD	t	df	Sig. (2-tailed)
		Usage	Importance					
F1	Human resources	6.11	6.24	-0.13	1.039	26.351	469	0.000
F2	Marketing	4.52	4.56	-0.04	0.873	14.234	469	0.471
F3	Maintenance	5.41	5.93	-0.52	1.129	25.709	469	0.000
F4	Government	2.79	6.35	-3.56	1.068	-26.953	469	0.000
F5	Innovation	5.24	6.28	-1.04	1.124	-22.472	469	0.000

All the five factors had a higher mean importance score than their usage score. In terms of typical levels of usage, Government support stands out as a major challenge. However, three

factors extracted had a mean attainment in excess of 5.0, as indicated in Table 4. One of the factors (Factor 1) exhibits a high mean usage score in excess of 6.0, i.e. Human resources practices. Pairwise evaluation of the equivalent importance-usage attributes (see Tables 2 and 3 for factor definitions and cross-referencing of factors for equivalence, Table 4 for summary statistics) all exhibit statistically significant differences at the 0.1 per cent level (see Table 5). An analysis of the importance-usage of individual crisis management attributes by mean ratings of importance and usage of crisis management practices is shown in Table 5 below.

Table 5
Mean ratings of importance and usage of crisis management practices

Theme	Attribute	Practice	Usage	Importance	Mean diff.	SD	t	df	Sig. (2 tailed)
F1		**Human resources**							
	V1	Laying off employees to reduce labour force	6.09	6.31	-0.22	0.758	27.040	469	0.000
	V2	Using unpaid vacation to reduce labour force	5.14	5.23	-0.09	0.946	25.312	469	0.000
	V3	Reducing the number of workdays per week	6.11	6.36	-0.25	1.103	28.004	469	0.000
	V4	Freezing pay rates	5.03	5.09	-0.06	1.152	12.723	469	0.000
	V5	Replacing highly paid employees with new low paid employees	4.82	4.93	-0.11	1.067	9.236	469	0.000
	V6	Increased reliance on outsourcing	5.74	6.27	-0.53	0.598	22.689	469	0.000
F2		**Marketing**							
	V7	Marketing to domestic tourists in joint campaigns with local merchants (such as Visa and MasterCard)	2.34	5.72	-3.38	1.128	24.785	469	0.000
	V8	Marketing to domestic tourists with focus on specific attributes of the location	2.51	5.40	-2.89	0.603	20.216	469	0.000
	V9	Price drop on special offers	2.33	2.43	-0.10	0.538	5.802	469	0.375
	V10	Reducing price list	2.20	2.28	-0.08	1.216	9.471	469	0.526
	V11	Marketing to foreign tourists with specific focus on the location's distinctive features and relative safety	5.76	2.26	3.50	1.112	4.258	469	0.402
	V12	Marketing and promoting new	4.48	4.50	-0.02	0.495	12.620	469	0.210

		products or services (family events, catering)						
	V13	Marketing to new segments	3.71	5.09	-1.38	0.720	18.793	469	0.001
F3		**Maintenance**						
	V14	Cost cuts by limiting hotel services	5.39	5.47	-0.08	1.103	26.583	469	0.000
	V15	Cost cuts by postponing maintenance of the building (cosmetics)	5.01	5.20	-0.19	1.006	24.554	469	0.000
	V16	Cost cuts by postponing maintenance to the engineering systems	5.25	5.37	-0.12	0.962	22.863	469	0.000
	V17	Extending credit or postponing scheduled payments	6.09	6.25	-0.16	0.808	26.900	469	0.000
F4		**Government**						
	V18	Organized protest against the lack of government support	2.32	5.87	-3.55	1.122	13.579	469	0.286
	V19	Industry-wide demand for governmental assistance with current expenses	2.98	6.49	-3.51	1.091	-29.034	469	0.000
	V20	Industry-wide demand for a grace period on tax payments	2.43	6.43	-4.00	0.820	-28.502	469	0.000
	V21	Industry-wide demand for a grace period on local tax payments	2.39	6.17	-3.78	0.764	-26.378	469	0.000
F5		**Innovation**						
	V22	Artificial intelligence (AI)	5.33	6.18	-0.85	1.210	-24.891	469	0.072
	V23	Virtual reality (VR) technology	5.86	6.21	-0.35	0.958	-21.678	469	0.001
	V24	Using big data for customer service	5.02	6.49	-1.47	0.764	-23.425	469	0.069

Further analysis of the importance-usage relationship by means of a simple quadrant analysis provides an interesting breakdown of individual crisis management attributes. Based on a

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mean score of 5.0 or higher representing the cut-off between low and high levels of both importance and usage, the data are divided into four parts, as shown in Figure 2.
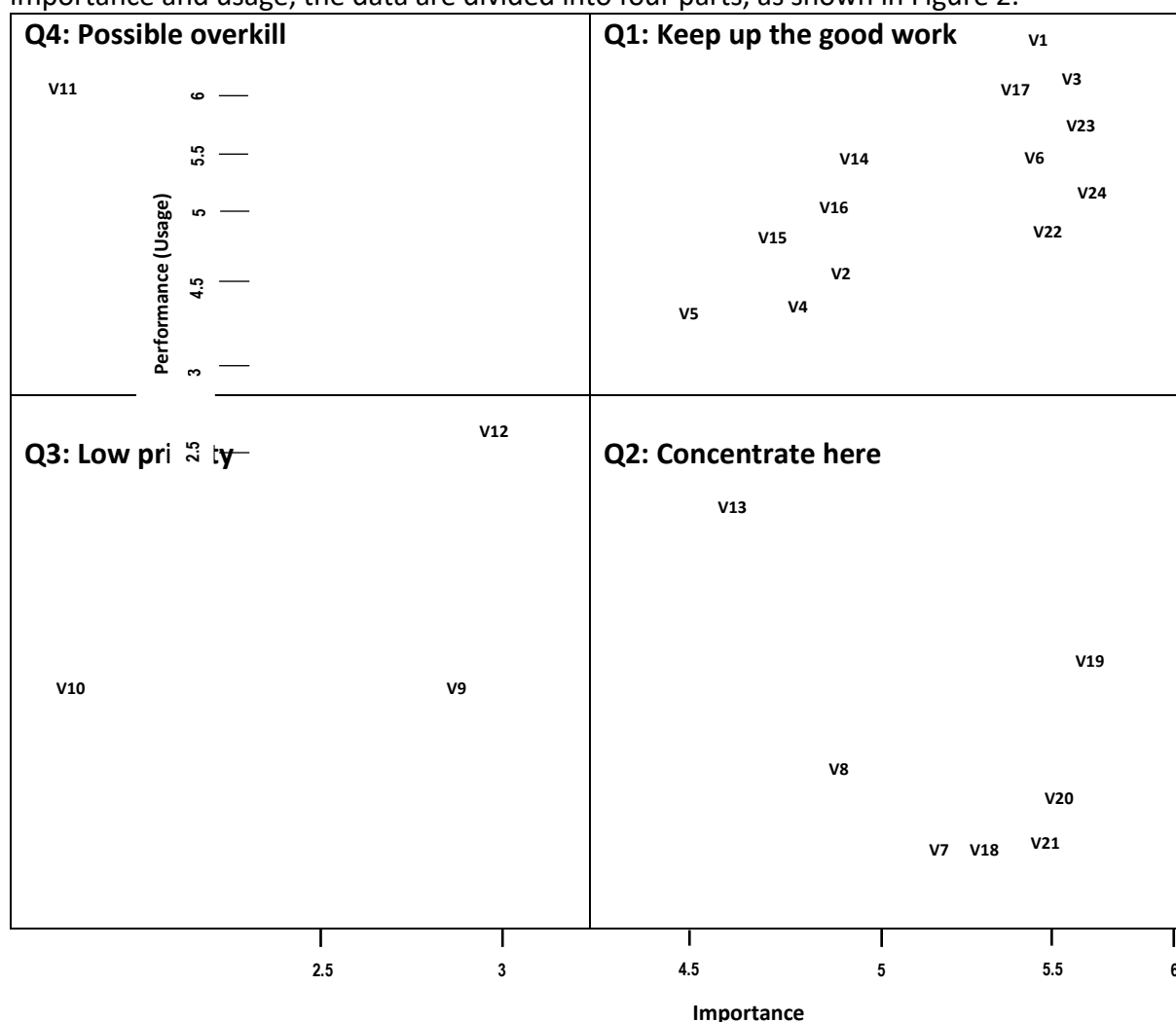

Figure 2: Importance-performance (usage) analysis results

i. Items in Quadrant 1 (keep up the good work) include 'laying off employees to reduce labour force (V1)', 'using unpaid vacation to reduce labour force (V2),' 'reducing the number of workdays per week (V3)', 'freezing pay rates (V4)', 'replacing highly paid employees with new low paid employees (V5)', 'increased reliance on outsourcing (V6)', 'cost cuts by limiting hotel services (V14)', 'cost cuts by postponing maintenance of the building (V15)', 'cost cuts by postponing maintenance to the engineering systems (V16)', 'extending credit or postponing scheduled payments (V17)', 'Artificial intelligence (V22)', 'Virtual reality technology (V23)' and 'Internet of Things (V24)'.

ii. Items in quadrant 2 (concentrate here) include 'marketing to domestic tourists in joint campaigns with local merchants (V7),' 'marketing to domestic tourists with focus on specific attributes of the location (V8),' 'marketing to new segments (V13)', 'organized protest against the lack of government support (V18)', 'industry-wide demand for governmental assistance with current expenses (V19)', 'industry-wide demand for a grace period on tax payments (V20)' and 'industry-wide demand for a grace period on local tax payments (V21)'.

iii. Items in Quadrant 3 (low priority) include 'price drop on special offers (V9),' 'reducing price list (V10)' and 'marketing and promoting new products or services (V12)'.

iv. Items in Quadrant 4 (possible overkill) include 'marketing to foreign tourists with specific focus on the location's distinctive features and relative safety (V11).

t-Test Analysis

The *t*-test of independent samples was applied with the aim of comparing crisis management practices between luxury and budget hotels, and to determine the statistical significance of their differences (Table 6). This type of statistical analysis was used to determine whether there was a statistically significant difference in the average score measurements of some characteristics with two groups (Pallant, 2007). A result of Levene's test for equality of variances determines the exact *t*-value that was used in the study analysis. The statistical significance of differences between the two types of hotels was determined by observing the results of the *t*-test of equality of variances and by examining the significance column (Sig. 2-tailed).

Table 6
Results of t-test analysis – importance

Theme	Practice	Hotel type	N	M	σ	t	Sig. (2-tailed)
F1	Human resources	Budget hotel	147	3.6417	0.82105	-6.497	0.000
		Luxury hotel	161	4.0581	0.62513		
F2	Marketing	Budget hotel	147	3.8251	0.61204	-1.897	0.051
		Luxury hotel	161	4.0220	0.93552		
F3	Maintenance	Budget hotel	147	3.7527	0.74834	-5.934	0.000
		Luxury hotel	161	3.8102	0.71257		
F4	Government	Budget hotel	147	3.7416	0.57840	-0.901	0.385
		Luxury hotel	161	3.8011	0.62523		
F5	Innovation	Budget hotel	147	3.5272	0.73200	-5.897	0.000
		Luxury hotel	161	4.2458	0.70452		

Note: t- *t*-test value; Sig. (2-tailed) za *r*≤0.05

When significance level is less than 0.05, it can be concluded that there is a statistically significant difference between the mean values of the dependent variable in both types of hotels (Pallant, 2007). When determining statistical significance of the values obtained by the *t*-test, probability of risk of 5% and 1% was taken. For large samples ($N ≥ 200$) at a significance level of 5% or less ($p ≤ 0.05$), $t ≥ 1.98$ (– sign is not important), and with level of significance of 1% ($p = 0.01$), $t ≥ 2.63$ (– sign is not important), the *t*-test was performed at the significance level of $p ≤ 0.01$. In case of this type of analysis, the *t*-test, shows whether there exists a statistically significant difference between independent variables (hotel type) and dependent variables (crisis management practices grouped into five factors).

The results of the *t*-test for independent samples showed that there was a statistically significant difference in management practices (i.e. in terms of importance) between luxury

and budget hotels. In four factors (F1, F2, F3, F5), it was shown that the importance of management practices differs between luxury and budget hotels. Crisis management practices were more important in luxury hotels compared to budget hotels. However, in one factor (F4 – Government), there were no statistically significant differences in management practices (i.e. in terms of importance) between luxury and budget hotels. Unlike the results of importance of crisis management practices, there were no statistically significant differences in the usage of practices between luxury and budget hotels for all five factors.

To understand the relationship between factors for importance and usage of practices and their location in different quadrants, the results from the importance-performance analysis model are discussed below.

Discussion

This study explores how and by what means hotels in South Africa are responding to the COVID-19 crisis. Given that it is the first empirical study in the management realm on hotel practices during the COVID-19 crisis it may be challenging to compare the results of this study and other related studies in different crises within different time periods. However, it is possible to discuss whether related studies have converged to similar conclusions in terms of the relationship between the importance and usage level of practices.

Using IPA quadrants, management practices were evaluated to identify their usage and importance and among the five dimensions, it is *Government* attributes that covered most of the 'concentrate here' quadrant whilst *Human resources, Maintenance and Innovation* attribute*s* covered the 'keep up the good work' quadrant. The addition of the *Innovation* attributes in management practices is interesting, as it adds a new dimension to literature on crisis management. While previous research (Israeli & Reichel, 2003; Israeli et al., 2011) reveals that managers' actions (usage) revolve around cost cutting and improved efficiency and not necessarily focus on effective courses of action, this study shows that managers' actions revolve around both efficient and effective courses of actions.

One plausible explanation might be the difference in the types and impacts of crises in this study and previous studies. Unlike previous studies that focused on the adversities imposed on the domestic hospitality industry by man-made terror events this study focuses on a global, high-impact natural crisis characterized by ambiguity of cause and effect with simultaneous impacts on both the demand and supply sides of hotel businesses. Consequently, different from man-made crises that have a short-term and predictable effect, the COVID-19 crisis may have higher impact than other types of crises and underscored the critical need for hotels to find effective innovative actions to complement efficiency.

The highest correlated practices suggested that crisis management was based on management recognizing the importance and using the practices of innovation and reducing labour force and maintenance costs. These managerial actions suggest that combating crisis situation is done by embracing innovative strategies and combining cost-cutting activities (primarily labour). Innovation can potentially boost demand, and cost control will allow hotels to serve this demand while being conscious about their profit margins.

The location of *marketing* attributes in the 'low priority' and 'possible overkill' quadrants is perhaps the most significant of all. The importance-performance analysis model provides a strong theoretical rationale for such effects by emphasising the hotel's allocation of resources on attributes that are deemed to be unimportant, and it is time to consider divesting investment in these areas by allocating more resources to the 'concentrate here' quadrant. Therefore, COVID-19 and the consequences of its outbreak are forcing hoteliers to reallocate

resources from low priority marketing attributes (i.e. to reduce investment in advertising and promotion) to innovative attributes that need more attention in order to sustain business flow. The location of *Government support* attributes in the 'concentrate here' quadrant represents immediate sectoral concern and demonstrates an effort to secure a bailout from a crisis that the industry is unable to confront on its own. This is consistent with the knowledge about crisis management (Lo et al., 2006) and signals a high level of consistency with the importance-performance analysis model. When a crisis is externally imposed on firms, they seek support from external factors that may have the power to assist in crisis situations.

The findings further reveal inconsistency between practices' importance and usage. Managers use a set of practices which are quite different from a set of important practices. These results confirm findings from various literatures (Israeli & Reichel, 2003; Israeli et al., 2018) which also found differences between what managers consider as important and what they actually do during a crisis. However, given that importance practices are more "ideal" than actual use, the findings describe management philosophy regarding crisis management.

Finally, the results reveal a statistically significant difference in the importance of crisis management practices between luxury and budget hotels. A possible reason might be that the impact of crisis tends to differ amongst hotel types (Israeli et al., 2011). However, the non-statistically significant differences in the usage of management practices attitudes between luxury and budget hotels for all five factors might be that managers in both types of hotels have similar attitudes on crisis management practices.

Conclusion

The purpose of this research endeavour was to explore how and by what means hotels in South Africa are responding to the COVID-19 crisis. Despite seeking *government support*, the findings reveal that hotels have also taken matters into their own hands by implementing cost cutting and innovative practices to mitigate impact. The results are useful in identifying strategic areas for hotels to focus on and hence maximise the resources to minimise financial damage. However, the findings diverge with management practices (Israeli & Reichel, 2003; Israeli et al., 2011) in previous crisis situations. Therefore, hotels should not "put all eggs in one basket" by relying heavily on practices from other type of crises because all crises are different and hotels need to tailor responses to individual crisis.

Theoretical Implications

By using the IPA model, hotel managers were better able to prioritise tasks (using quadrants) and develop tailor-made crisis management strategies. This prioritisation has potentially resulted in more effective and efficient allocation of resources, and hence, recognition of priority practices during a crisis. In so doing, the study adds rigour to literature on crisis management in hospitality and adds to the limited body of work on crisis management in tourism.

Traditionally, crises were classified by their nature (public health, social, economic, etc.) and the nature of crises determined management practices in the hospitality industry. However, the uniqueness of COVID-19 (long time and world-wide and cross-industry impacts) provides insights into the classification of crises because previous practices may not apply. Perhaps it is time to take into account time, pervasiveness, and coverage (both in terms of industry and geography) of the crises when classifying crises as hotels may take different actions concerning those new factors. The new classification system may impact the way we understand crisis management in hospitality.

Practical Implications

In South Africa, the Travel Business Council of South Africa (TBCSA) has pushed the Government to introduce economic aids to relieve the financial difficulties that are being faced by hotels and for insurance companies to settle business interruption insurance claims. If hotels do not receive financial assistance externally, their survival could be largely threatened, with a possibility of a massive business closure. It is, therefore, suggested that the Government and insurance companies should assist hotels financially.

Finally, echoing Salman et al.'s (2017) sentiments, this study stresses the need for hotels to redesign their marketing strategies during this contagion. Hotels should reduce overreliance on international tourists and explore the local market through the promotion of domestic and intra-regional tourism and travel. This will serve as a catalyst for triggering recovery and stimulating growth in the industry. Unfortunately, this has not been the case in South Africa, with hotels preferring marketing campaigns targeted at international visitors (Figure 2) whilst neglecting the purchasing power and potential contributions of the growing domestic middle-higher income classes to the industry.

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