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Abstract: This paper aims to understand the impact of the health crisis on the tourism and hospitality sector and to investigate the strategic and operational management of this crisis. The role of new technologies is particularly examined, and the study is positioned within the social system theory (SST) framework. To achieve this objective, an exploratory qualitative study was conducted, employing in-depth interviews with hotel managers. The results of the study highlight the impact of the crisis on the operational and strategic management of hotels, given the significant changes in demand and consumer needs. Consistent with the social system theory (SST), the findings demonstrate the interdependence among the various communities involved in the hospitality system. As a contribution, this study proposes an integrative model of crisis management within the theoretical framework of SST. Due to the novel, exceptional, and unpredictable nature of the COVID-19 pandemic, studies on crisis management model in this context are very limited. As a result, decisions were primarily improvised, driven by the need for quick action, focused on operational aspects.

Keywords: COVID-19; crisis management; social system theory; SST; tourism; hospitality; digitalisation.

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1 Introduction

The global economy has undergone significant downturns in the past two years as a result of the substantial repercussions of the Coronavirus 2 pandemic (Kuckertz et al., 2020). In response, a majority of countries have placed health as their top priority, implementing stringent protective measures such as containment, social distancing, and border closures. These decisive actions have directly and adversely affected several sectors, resulting in a substantial decline of up to one-third of the gross domestic product (GDP) for major economies.

As per the World Tourism Organization (UNWTO) (<https://www.unwto.org/fr>), the tourism industry witnessed a sharp decline of 50% to 70% in activity compared to the corresponding period of the previous year. The consequences of this downturn have been devastating for a sector that typically accommodates over 1.5 billion tourists annually and employs more than 300 million people.

The hospitality sector has been severely impacted by the decline in both international and domestic travel caused by lockdown measures (Gössling et al., 2020). The existing

literature highlights the challenges faced by industries in coping with natural disasters such as floods and earthquakes (Lee and Cowling, 2013), as well as health crises (Jiang and Wen, 2020; Lai and Wong, 2020; Hao et al., 2020; Bonfanti et al., 2021; Shin et al., 2021; Sanchis et al., 2022). The risks associated to health crises differ significantly from that of natural disasters because of their impacts on business continuity. While natural disasters may cause devastation within specific regions, typically confined to limited areas and short timeframes, pandemics can have profound, far-reaching, and enduring effects on both individuals and the economy (Santos et al., 2013; Filimonau et al., 2022).

Since 2020, a growing interest has been given in the academic research to health-related crisis management in the hospitality and tourism industry. A systematic review of the literature on crisis management in the hospitality and tourism industry found limited literature on this topic in the period 1985–2020 compared to a sharp increase in related research interests that emerged thereafter (Wut et al., 2021). Indeed, COVID-19 crisis management is one of the main emerging themes that have revolved around health-related crisis since 2020. Huang and Wang (2023) found that studies on the impact of COVID-19 on consumer behaviour predominate in number, followed by studies on response actions and recovery strategies, impact on industry or sectors as well as the impact on workers and employees. The objective of this study is to investigate the impact of COVID-19 crisis on the tourism and hospitality sector from a holistic perspective.

To this end, this research aims to provide an in-depth understanding of the impacts and the management of health crisis in the tourism and hotel sector with reference to social system theory (SST) (Dossa, 1990). The crisis has profoundly affected numerous organisations, individuals, and countries, prompting a range of decision-making approaches. These entities can be viewed as interconnected communities within the same system, where decisions made in one community inevitably impact the others. The aim is then to propose a global and holistic understanding of the management crisis in these communities and to identify the interconnections between them.

Through an exploratory qualitative approach, this research proposes to understand the impacts of the crisis on the sector as well as the actions taken by professionals and authorities to manage it. Given the substantial travel restrictions in place, virtual exchanges have taken an important place thanks to communication technologies and the digitisation of work processes. Thus, the role of digitalisation is especially highlighted. Furthermore, using a prospective approach, we will try to understand the vision and the potential projections for the post-COVID period.

Therefore, the following research questions are proposed:

- What are the impacts of the health crisis on tourism and the hospitality sector?
- What are the place and the role of technologies in the crisis management?
- What is the role of the government and the authorities in the management of the crisis?
- What are the vision and the outlook for the sector after COVID-19?

For this purpose, in-depth interviews were conducted with hotel managers who were directly involved in managing the crisis within the sector during the pandemic. The findings of this research would have significant contributions for hotels managers' in a context of growing fears of further sanitary crises worldwide.

Hence, this study seeks to provide a comprehensive overview of the management of health crisis experiences in the tourism and hospitality sector, with the goal of inspiring strategic and operational recommendations to the hotel industry. To this end, this research proposes strategic and operational measures that can be implemented to effectively address potential future crises. Indeed, governments, marketing and communication agencies, as well as tourism and hospitality organisations should learn lessons from the COVID-19 crisis to better address future disruptive events affecting the tourism industry (Aldao et al., 2022).

The paper is organised as follows: Section 1 presents the theoretical positioning of the study within the crisis management theory and social systems theory. Section 2 provides a detailed presentation of the research methodology and the results. The last section proposes a general discussion of the findings as well as their theoretical and managerial implications. Limitations and future avenues of research are finally presented.

2 Theoretical background

2.1 Social systems theory (SST)

SST considers the society as a system including individuals and human groups in interaction with each other (Dossa, 1990). This theory is founded on the concept of communities (Reicherter and Billek-Sawhney, 2003) as interconnected components of a system (Dossa, 1990). Indeed, each change that occurs on a component of the system systematically affects the other components and the system as a whole. SST has been previously studied in hotel and tourism research to identify the cultural differences reflected in perceptions of COVID-19 events (Shapoval, 2021).

This study aims to explore the interrelations between different communities: hotel managers, governments, personal and clients in the crisis management context within the theoretical framework of the SST.

2.2 Crisis management

Faulkner (2001, p.136) defines a crisis as any action or failure to act that interferes with an organisation's ongoing function, the acceptable attainment of its objectives, its viability or survival, or that has a detrimental personal effect as perceived by the majority of its employees, clients or constituents. Globally, crises are characterised by uncertainty, unpredictability and an inability to regulate the functioning of a system (Koehl, 2011; Jiang and Wen, 2020; Lai and Wong, 2020; Hao et al., 2020).

Crisis management involves the process of anticipating and preparing potential issues and damages that may disrupt or hinder operational activities, thus enabling timely and effective response (Williams et al., 2017; Doern et al., 2018; Bonfanti et al., 2021; Shin et al., 2021). Various crisis management strategies have been proposed to enhance prevention measures and therefore the effectiveness crisis management. Beirman and Van Walbeek (2011) suggest a crisis management process organised in six stages:

- 1 Identification of risks before they occur.
- 2 Evaluation of the impacts of risks, their categorisation and prioritisation.

- 3 Implementation of solutions to reduce the impact of risks.
- 4 Evaluation of the effectiveness of the implemented solutions
- 5 Review of solutions based on feedback.
- 6 Involvement of stakeholders in the implementation of the necessary changes and corrective actions.

Faulkner's (2001) research also proposed six stages for crisis management. The first stage involves preventive measures, where contingency plans are developed to anticipate and prevent a crisis. The second stage focuses on response strategies, where contingency plans are activated to address the crisis. In the subsequent stage, known as the emergency stage, swift protective actions are taken to safeguard individuals and assets during the crisis. The next phase focuses on addressing the immediate needs of those affected by the crisis. This involves providing assistance and support in the short-term. In the intermediate phase, effective communication is emphasised to meet the longer-term needs of the affected individuals and communities. The recovery stage entails addressing long-term requirements, such as rebuilding infrastructure, restoring tourist attractions, and facilitating the recovery of facilities. This stage involves coordinated efforts among various stakeholders. Lastly, in the resolution stage, all strategies and actions implemented during the crisis are thoroughly reviewed to inform the preparation of future emergency plans and enhance crisis management capabilities. Preventive strategic measures and practices have been identified as important factors in effectively managing crises (Williams et al., 2017). In addition to the significant contribution of stakeholders in crisis management, the role of managers during a crisis is crucial, encompassing their beliefs, values, and determination, which are essential considerations (Kuckertz et al., 2020).

2.3 Health crisis management in the hospitality sector

The tourism sector has always faced considerable challenges since it is constantly threatened by different crises 'episodic events that disrupt the tourism and hospitality industry on a regular basis' [McKercher and Hui, (2004), p.101]. Indeed, the sector is characterised by a high degree of vulnerability due to the several natural and human-induced disasters and crises that have affected it, such as the COVID-19 pandemic, terrorist attacks, political instability, economic recession and natural disasters (Tse et al., 2020; Zhong et al., 2021). A tourism crisis can be defined as the circumstances which put in danger the attractiveness of a touristic destination (Beirman and Van Walbeek, 2011). Moreover, due to its inherent reliance on interpersonal contact and physical presence (Hao et al., 2020), the hospitality industry has experienced one of the most severe impacts from the COVID-19 pandemic (Monitor, 2020).

According to Koehl (2011), tourism crises can be classified into five distinct categories: events that have an impact on the environment, (e.g., earthquakes and climate change), events that affect the political and societal climate, (e.g., terrorist acts), events that influence the health of humans or animals, (e.g., disease epidemics), technological events, (e.g., information technology system failures, hacking, and cybersecurity attacks), and finally, economic events (e.g., financial crises).

The tourism sector has experienced the impact of health crises in the past and continues to face the threat of such crises, despite advancements in the field of medicine. Throughout history, the world has witnessed an increase in the occurrence of pandemics, including diseases like cholera, the Asian Flu, Ebola, the Spanish flu (influenza), the Hong Kong flu, SARS, and most recently, the COVID-19 pandemic (Hall et al., 2020; Bonfanti et al., 2021; Shin et al., 2021; González-Rodríguez et al., 2023; El-Said et al., 2023). The COVID-19 pandemic, in particular, has imposed stringent lockdown measures, leading hotels to undertake employee layoffs as a result (Hall et al., 2020). The restrictions on travel, including border closures and lockdowns, have significantly and negatively affected the tourism accommodation and catering sectors. These industries have been confronted with widespread furloughs and extensive job cuts due to the enormous challenges imposed by the pandemic (Bonfanti et al., 2021; Shin et al., 2021).

Since the tourism sector is closely linked to the air, land and sea transport, the tourism industry was strongly impacted by the fall in air traffic activity which recorded a drop of 90% (Gössling et al., 2020). The pandemic has introduced unprecedented limitations on people's mobility, resulting in widespread quarantines imposed by several countries and regions. The stages outlined by Faulkner (2001) may be applicable in handling unpredictable crises, such as the case of the COVID-19 pandemic. However, adhering to these steps did not prevent the widespread transmission of the virus, resulting in a disruption and cessation of operational activities. As a result, work methods had to be altered, necessitating the digitalisation of activities that could be performed online. Existing literature on crisis management in the hospitality industry emphasises the significance of implementing innovative practices through the use of new communication technologies, reinforcing marketing efforts, providing training to employees on new health protocols and work methods (Garrido-Moreno et al., 2021; Sigala, 2020).

To this end, it is fundamental to consider the importance and the necessity of digital transformation implementation in tourism sector (Hunt, 2020).

2.4 Challenge of digital transformation in tourism and hospitality sector

In recent decades, the tourism industry has experienced a revolutionary digital transformation due to the technological advancements (Buhalis, 2020); which led to significant organisational changes within the industry (Navío-Marco et al., 2018). Digital transformation, characterised by rapid and complex changes (Hess et al., 2016; Heberle et al., 2017; Krcmar, 2018), encompasses more than just the adoption of new technologies; it entails fundamental shifts in processes and organisational structures (Williams et al., 2019; Rasheed et al., 2023). There is a continuous effort for optimising the use of new digital technologies in customer interactions, organisational processes, and even business models (Teichert, 2019; Rasheed et al., 2023). The use of digital technologies has enabled several hotels to sustain their activities during the pandemic, transcending the constraints of traditional work environments (Rivera, 2020; González-Rodríguez et al., 2023).

Technology has played a crucial role in maintaining online services for customers, including communication, managing bookings, and planning future actions. It has allowed for the continuity of essential services and facilitated communication with stakeholders. For instance, in China, 90% of hospitality employees relied on the mobile application 'WeChat' as their primary communication tool for work (Meng, 2017). Over

20 million employees followed business project updates through their company's WeChat business accounts (Wang, 2016; Hunt, 2020).

The objective of this study is to understand the impacts of the health crisis on the hospitality sector within a system approach. It aims to examine the strategic and operational decisions and measures implemented to manage the crisis.

3 Methodology

3.1 *Spatio-temporal context of the study*

The empirical investigation was conducted among hospitality professionals in Tunisia during the period of September-October 2021, approximately 18 months after the onset of the sanitary crisis in March 2020. This time frame was relevant to allow a more comprehensive retrospective analysis of the situation, as professionals of the sector have gained a thorough understanding of the crisis and of the decisions taken to manage it. However, it is important to note that the last quarter of 2021 witnessed a resurgence of the crisis with new waves, which raised significant concerns among professionals regarding the future of the sector in the post-COVID phase.

Tourism holds a strategic position in the Tunisian context, playing a vital role in the growth of the national economy and contributing to employment opportunities for over 25% of the working population. However, the sector has been severely impacted by the crisis, with a 75% decrease in the average number of border arrivals and a significant decline of approximately 64% in accommodation revenue (<https://www.tourmag.com>).

3.2 *Sample*

For the purpose of this study, a total of seven individual in-depth interviews were conducted with hotel managers. Saturation, which refers to the recurrence and repetition of ideas generated when no new information emerges from the interviews, was achieved since the fifth interview. However, to further validate the saturation condition, two additional interviews were conducted.

The interviewed managers operate in different locations, including seaside regions and downtown areas, to gain a comprehensive understanding of the impacts and implications of the pandemic and how they manage crisis conditions.

All the interviewed managers are also hotel owners, which explain their significant and personal concern for the survival and sustainability of their projects. Their responsibility is enormous, as they have to ensure a stable source of income for several families employed in their companies.

3.3 *Data collection*

Because of the sanitary crisis conditions, the interviews were conducted through visio conference calls. All interviews lasted an average of one hour each. The interviews have been conducted through a semi-structured questionnaire organised in three main themes:

- 1 Impacts and implications of the health crisis on the tourism and hospitality sectors.
- 2 The management of the crisis in the hotels:

- strategic and operational decisions
 - role of government and authorities
 - role of technologies.
- 3 Vision, outlook and managerial recommendations for the sector management in the post-crisis phase.

3.4 Analysis

All interviews were recorded and integrally transcribed to avoid any bias or omission. A thematic content analysis was performed for the purpose of the analysis. The main themes have been firstly identified. Recurring ideas have been grouped into units of analysis.

4 Results

Despite the differences of locations and hotels categories, we noticed several similarities in the statements of the interviewed managers. This leads to the conclusion that tourism professionals found themselves facing similar conditions during the crisis.

The major themes identified from the content analysis are:

- Impacts of the health crisis on the tourism and hospitality sectors.
- Place and role of technologies in crisis management.
- Role of government and authorities in the management of the crisis.
- Vision and outlook for the sector after COVID-19.

4.1 Impacts of the health crisis

All the interviews confirm the deep problems in the hotel industry and the tourism sector in Tunisia. These problems are not recent and the health crisis unveiled the sector's precariousness and sped up the worsening of the situation and the collapse of tourism.

4.1.1 Impact on the tourism sector

The whole sector was affected by the health crisis; some cities became ghost towns in the absence of any touristic activities. The crisis also affected crafts and small businesses, especially in coastal towns where survival depends mainly on tourism 'in these dead cities, closure decisions were imposed on craftsmen, restaurant owners, some hotels'. Limited sources of income caused important purchasing power loss, which led to a demand decrease. Dependence between these different activities resulted in a collapse of the tourism sector.

4.1.2 Impact on the hotel industry

The month of March, which was supposed to be the beginning of the touristic season, especially for seaside hotels, coincided with the beginning of the worldwide health crisis

in 2020, which resulted in many closures. In fact, hotel industry professionals mentioned that ‘closure was less costly than a reduced or almost inexistent activity’. The hospitality sector has been highly indebted for two decades, and professionals mentioned solvency problems with banks. They were forced to withdraw money from their capital to honour their financial commitments in the absence of income.

4.1.3 *Impact on the demand*

The occupancy rate in hotels has highly decreased due to the health crisis, ‘on March 2020, reservations decreased by 70%’. Many hotels had to close for the following two months in the absence of any activity because of the lockdown. A low resumption of work has been noted in June with 30% of activity, then with 60% in July-August.

The summer season, described as – *awful* – by the hotel industry professionals, ended with a 70% fall in September due to the unexpected second wave of the pandemic.

The situation was not better in 2021. The epidemic wave faced in June-July completely destroyed the chances of a resumption of activity during the summer season, especially for seaside hotels, ‘Tourism has resumed in several countries with the start of the season, while we closed in June/July. Foreign tourism remained at its 2020 level unlike other countries’.

Customers were mainly local, and they contributed to limit the damages and to save some jobs.

However, the situation was a little different in downtown hotels. They were able to ensure a reduced activity because their customers are mostly professionals and non-seasonal.

4.1.4 *Impact on employability*

The limited and reduced activity in hotels has undeniably caused both a decrease in the employment rate and temporary layoffs during the first wave of the pandemic. Even though some hotels kept paying their permanent employees, they had to cancel more than a half of the contracts and not renew those which were expired.

These necessary and painful decisions highly affected the purchasing power of the employees

“The curfew leads to the closure of bars and restaurants; whose services represent a source of income for employees thanks to tips.”

4.1.5 *Impact on operational management*

Reduced activity has forced hotels to prepare contingency plans to deal with the new situation and new working conditions. The supply chains had to be updated and reorganised. Managers tried to avoid waste and to reduce the charges, ‘with a very low occupancy rate, several spaces have been closed at the hotel. Only the compartments around the lobby have been kept functional. This allowed energy savings and reduced energy costs’.

Restaurant services have also been updated in order to respect the sanitary protocol and to reduce charges. In fact, the buffet has been replaced by table service. For more than a year, hoteliers have done minimal maintenance just to avoid complaints ‘we are still in the midst of precariousness, we cannot afford investments’.

The main concern was the payment of salaries and they were constrained to take out loans to finance them.

4.2 Government decisions and policies in the management of the crisis

The health crisis has involved political and government decisions that have strongly impacted the tourism and hotel sector. The main drastic measures taken are lockdown, border closures and curfews. These measures were accompanied by the imposition of strict sanitary protocols in hotel establishments open to the public.

Although professionals of the sector recognise the unavoidability of these drastic measures, they all criticised the absence of a financial compensation and support of the government. In addition, border constraints were accompanied by restrictive measures imposing compulsory confinement in hotels for all arrivals in Tunisia. Hoteliers say that they were required to choose either to be on the list of establishments welcoming confined people or to keep the format of a hotel receiving 'ordinary' customers. Despite the drastic health protocols put in place in hotels, it was not possible to combine the two options. Some managers have also declared that this confinement obligation was an 'aberration' and 'economically unsuitable'. Hotels were then deserted by the absence of travellers. Professionals also raised the issue of the important investments they had to make to implement the health protocols imposed by the government, without any financial support. They were unanimous on the negative judgement of government policies, all qualifying the state as 'resigning'. The rare state aid offered to employees in the sector is considered to be very low and insufficient to compensate for the massive job losses.

The significant improvement in the epidemic indicators allowed the announcement of a gradual lockdown lifting from June 2020 and the reopening of borders. A slow recovery in activity was recorded especially in the seaside establishments, thanks to a mainly domestic clientele. The income recorded during the summer season remains very low compared to seasonal averages.

However, a slackening in the application of protocols has been at the origin of an unexpected resumption of the epidemic in September 'a second wave that we did not see coming'.

Hotels professionals also blame the government for its mismanagement of the health crisis. The relaxation observed during winter and spring 2021 in the application of health protocols resulted in a rebound of the epidemic; which had catastrophic effects on the sector 'we have a one-year lag'.

Globally, all interviewed managers agree on the total absence of the authorities to support the affected sector 'nothing was done. This sector has been mistreated; each operator survived as best as he can. We did not really have the choice'.

4.3 Place and role of technologies in the crisis management

In a context of limited trips, all interviewed professionals confirmed that developing digital technologies was a solution to maintain their activities. Indeed, technologies enabled virtual meetings and therefore, a continuity of communication and of some activities.

4.3.1 *Impact of technology on services and working methods*

In the case of downtown hotels, business customers have requested rooms and working spaces equipped with technological facilities to remote meetings. However, the hotels were not yet ready to satisfy rapidly such needs and to provide such services “We did not have the necessary equipment, nor the skills to meet their needs and requests. We took time to contact suppliers and to have the necessary equipment”.

Digitalisation was necessary and very important to maintain booking activities online

“Working methods and relationships with our customers and partners have evolved. Last minute booking was therefore possible for our customers”. Moreover, relationships with professional partners such as travel agencies evolved to make possible real-time availability for reservations “Technology has enabled any agency of any size to have real-time online access to inventory. Even small agencies have access to inventory at any time without waiting for the reservation service to open. This allows speed in the reservation and therefore to sell more and at the last minute.”

However, technologies led to the reduction of the sales force because of the automatization of the operations, which contributed to have less costs.

Moreover, all respondents agree on the need of digitisation of some services targeting customers “I think we will have to digitise, we no longer have a choice, although we are already late. We are moving towards the automation of services such as check in or payment”. Connected customers will no longer need assistance from hotel staff to perform these services.

In addition, several restaurants and hotels introduced the technology of the dematerialised menu card with QR Code. The customer has to scan the QR code at the restaurant and he instantly receives the menu on his smartphone.

On the other side, technologies have been massively used to promote businesses (social media marketing, online reservation services, and e-mail) “We had to look for creative solutions like short videos to well communicate on our services and sanitary protocols implemented in our establishment to customers”.

4.3.2 *Scope and sustainability of digitalisation of the sector*

Globally, hospitality professionals fully agree on the need for a deep digital transformation in the sector. It is true that the pandemic has accelerated the digitalisation process but only a little impact on technology use has been achieved “I expected there would be more impact of COVID-19 on the use of technology but it is not”.

But, despite these technological changes implied or accelerated by the pandemic situation, the managers remain skeptical about the sustainability of these changes in this sector. For example, concerning the dematerialised menu card, ‘many restaurants will soon return to the paper menu. We find that the dematerialised card is nice, but in the long-term, the charm disappears, this little design in the menu, turning pages to read the menu, are still important things’.

Moreover, the hospitality activity requires the presence of staff. Apart from the reservation, everything else requires a staff present. The hotel industry was the most impacted by the crisis at the time of the confinement, as it is an activity that cannot operate exclusively by teleworking.

“We need housekeepers, cooks, and people who serve because our core business is accommodation and catering. So, we can’t automate everything.”

4.4 Vision and managerial perspectives for the post-COVID period

Managers highlight the problem of visibility in the post-COVID period for the sector « We are in a situation of vagueness and lack of visibility ».

Faced with this ‘blurred’ situation that some have called an ‘impasse’, they are unanimous on the need for a total and a profound overhaul of the entire sector.

It is no longer a question of ‘a resumption of activity’, but of the radical reforms necessary to resolve ‘the structural and chronic problems of the sector’.

It is fundamental to deal with the issues of the sector before COVID-19 which are still there (no open sky, very limited air connections, digitisation of the sector).

Moreover, professionals require that the authorities assume their responsibility for ‘cleaning up the sector’.

Hospitality professionals speak about the need to resolve the problem of heavy dependence on tour operators, which is a major handicap in ensuring the autonomy of the sector.

4.4.1 Solve debt problems

Experts qualify the hotel industry’s debt problem as ‘a structural and chronic problem for two decades’ that needs to be drastically addressed. Heavily indebted hotels continue to work by slashing prices, which creates unfair competition and a problem of competitiveness for those without debt. In the post-COVID-19 period, only hotels in a good financial position will be able to resist and hope to resume normal activity.

4.4.2 Environment – hotel synergy

Experts emphasise the synergy that exists between the hotel and its environment. The customer generally seeks a satisfactory experience in and outside the hotel. But ‘The job of the hotel industry is to provide accommodation and catering; the rest goes to the environment’. It is therefore fundamental that all stakeholders assume their responsibilities to ensure a clean environment and accessibility to attractive attractions and welcoming spaces outside the hotel.

4.4.3 Transport – hotel synergy

The hotel sector is closely linked to air transport traffic. ‘One of the accelerators of the crisis was the supply of beds that far exceeded the number of seats on planes’. This situation is the result of a state protectionist strategy banning the open sky. This imbalance has been amplified with the health crisis and the closing of borders.

The open sky is thus proposed as a solution to rebalance the equilibrium between the number of seats and the supply of beds in hotel establishments.

4.4.4 Strict control of labels

The professionals of the sector require that the authorities do strict controls of labels. They blame the national tourist office for ‘not playing its role’ and demand a review of

the labels awarded. Many hotels continue to maintain labels in establishments that are not renovated and in some cases dilapidated, “I am investing in training, in the renovation and I have the same label as another who makes people work illegally and who does not take any action to meet the standards relating to the label”.

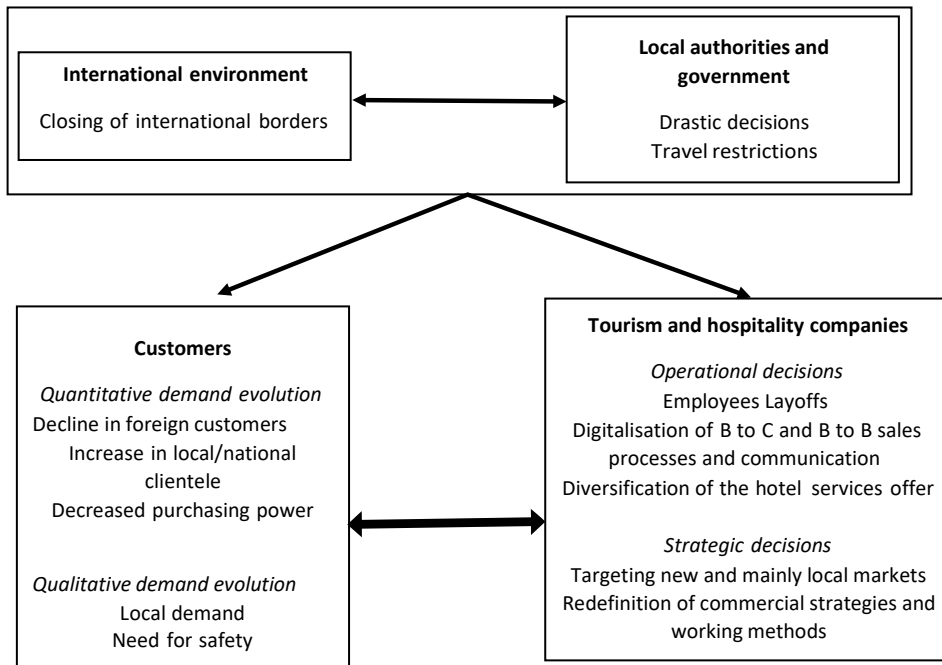
4.4.5 Strategic and operational management

When questioned about strategic and operational actions to implement in their companies, they state that COVID-19 pandemic makes forecasting difficult, especially when it comes to budgeting. In spite of the mentioned difficulties and complexity to forecasting, they mainly focused on the need for immediate and global digitalisation of the sector ‘It is necessary to be up to date in terms of technology and to offer more efficient tools to satisfy evolving and changing needs of customers’.

4.5 Summary: a proposition of a crisis management model within the SST

Figure 1 presents a positioning of the main findings of this study within the theoretical framework of SST. The main communities are involved in the management crisis are presented as an interconnected system. Each component is dependent from the others and therefore each change in one sub-system will impact the others. Three main communities are here identified: the international and local political environment, the customers and the tourism and hospitality companies.

Figure 1 Crisis management in the hotel sector with reference to SST



According to SST, we can conclude that every decision taken internationally systematically influences local decisions in a country and vice versa. For example, the government's decision to impose mandatory confinement on all travellers arriving in Tunisia, has considerably reduced the number of international arrivals, in the same logic of the closure of borders decided by several countries. Every decision taken in one country takes into account the measures decided in other ones. Decisions taken within these communities will impact either the consumers and the hotel companies' communities. Market demand is then influenced and changes occurred on the structure of the demand for example will imply the implementation of reactive managerial decisions in companies. In addition, employees' layoffs are accompanied by a decrease in incomes and therefore in purchasing behaviour, and therefore on the market demand. Another example concerns the necessity to change working methods and to digitalise processes because of lockdowns and drastic measures of social distancing.

5 Discussion

The health crisis has had a profound impact on several sectors worldwide. The tourism and hospitality industries have been particularly hardly impacted.

The severity of the damages occurred can be attributed to the sector's already vulnerable and precarious condition. Therefore, it would be more accurate to qualify the pandemic as an accelerator of the crisis rather than its sole cause.

Despite this fragile situation, the need for crisis management measures was only recognised with the onset of the pandemic. The health crisis has sounded the alarm, revealing the chronic problems of a vulnerable industry. This may explain the delayed response in establishing crisis management mechanisms.

Operational management has become highly meticulous, with more attention paid to each process or task, which has implied a radical reorganisation of all hotel operations. Several decisions were taken to deal with the crisis such as the digitisation of booking processes, the evolution of B to B relationships with professional partners and the development of digital communication. In particular, the implementation of digitalisation facilitated communication and reservations; which guaranteed a continuity, although weak, of the activity.

Although the government decisions taken to manage the crisis (border closures, travel restrictions, curfews and health protocols, mobilisation of hotels for confinement) were necessary, they have amplified the problems of the hotel sector. These drastic measures were not accompanied by the required compensations; which led to several closures and bankruptcies within the sector. In the same line, a study conducted in South Africa confirmed the insufficient government support to aid recovery for small firms that have suffered severe financial losses because of the COVID-19 shock and that had only few viable mechanisms to cope with the impact of the crisis (Booyens et al., 2022).

Concerning the outlook of managers for the post-COVID period, the interviews conducted highlighted a lack of visibility for this period. The focus is primarily focused on the operational aspects, with a limited strategic vision due to the persistent threat of new waves of the epidemic. In a prospective approach, hospitality professionals recommend a profound and global restructuring in the whole sector rather than a punctual rescue in the context of a crisis.

6 Conclusions

For a long time, several crises, (e.g., the 9/11 terrorist attack, the Gulf War of 1991, the Iraq conflict in 2003, the global financial crisis of 2008, and now the COVID-19 pandemic) have weakened the tourism sector, making it very vulnerable.

Among these crises, the COVID-19 pandemic has had a particularly severe impact on the hospitality industry, surpassing the losses implied by all previous crises combined (<https://www.oxfordeconomics.com>). This unprecedented situation has imposed the implementation of urgent strategies to deal with the crisis.

6.1 Theoretical implications

The findings of this study contribute to tourism and hospitality management research in several ways. Firstly, it enriches the literature on crisis management by providing in-depth comprehension of managerial experiences, strategic and operational decisions as well as the practices implemented to address the COVID-19 crisis. Secondly, this study provides an overview of health crisis management strategies and practices. It contributes to the literature by proposing a crisis management model specific to the hospitality sector. This effort of conceptualisation is positioned within the theoretical framework of Social Systems Theory (SST) to provide insights on the impact of the pandemic on various communities, including individuals, organisations, industries, countries, and the global community. Through a practice-oriented approach, this study proposes an integrative model of the effects of the pandemic on interconnected communities within the tourism and hotel system.

Another contribution of this study is the examination of the role and significance of technology in health crisis management. The extensive adoption of digital technologies, particularly teleworking, during the COVID-19 pandemic has enabled hotel managers and employees to maintain connectivity with each other and with their guests. The findings indicate that hospitality professionals recognise the importance of implementing and strengthening new technologies within their establishments and processes to fulfil various roles. This is consistent with studies on the relevance of using digital technologies in the hotel industry during the post-COVID-19 recovery phase (Rivera, 2020; Jiang and Wen, 2020).

Indeed, the adoption of digital technologies in hotel operations enables employees to respond promptly to requests at any time and from any location. In an interconnected tourism industry, digital technologies can facilitate continuous professional communication and enhance employees' organisational commitment (Jiang and Wen, 2020; Williams et al., 2019).

6.2 Managerial implications

The findings of this study suggest several managerial implications and recommendations. According to hospitality professionals, a greater and effective involvement of the government is essential to save and revive the tourism sector. This is particularly important for small and medium-sized hotels that have limited finances. Fair and transparent financial support from authorities and stakeholders can ensure the restoring and the continuity of these small hotels. The size and financial resources of the hotel, as

well as the legal framework, are significant determinants of the effectiveness of crisis responses in the hotel sector. Large and high-standard hotels are generally better equipped to face crises compared to smaller establishments. According to Ritchie et al. (2011), larger companies have stronger brands, better communication technologies, and more robust financial support. This highlights the crucial role of the government in supporting small and medium-sized hotel businesses not only through financial assistance but also through personalised and specific regulations.

Additionally, our findings provide guidelines for practitioners to develop proactive strategies and to put in place preventive practices in the pre-event phase. During the emergency phase, all hotels should implement health and safety protocols to address guest concerns. These protocols may include more systematic cleaning practices and safety training for staff-guest interactions, especially in catering activities.

Furthermore, digitisation plays a significant role in enabling social distancing by reducing physical interactions (Jiang and Wen, 2020). The pandemic has accelerated the need for ‘business innovation’, emphasising the importance of increased automation of services and processes which can help hotels to ensure the continuity of their operations and activities (Rivera, 2020). For instance, implementing digital menus in restaurants, offering online service ordering, and enabling online self-check-in are some examples of digitisation measures that can be adopted by hotels. Likewise, the use of intelligent virtual agents can reduce the feeling of isolation among hotel customers during quarantine periods, thus contributing to creating and developing social connections. In the same line, hotels should invest in online marketing and communication campaigns that can be promoted through social media platforms, reaching confined individuals and potential guests. This would help them to keep in touch with their customers which can help them to overcome the crisis and to remain competitive. Online communication should also be focused on hygiene and safety measures to enhance consumer confidence and security feelings.

In addition, hotels should adopt ‘recovery strategies’ that target domestic customers, especially in the case of international travel restrictions. The demand of domestic guests becomes a crucial driver for hotel recovery (Rivera, 2020).

Finally, in addition to customers, hotel managers need to strengthen cooperation and communication with their business partners, including suppliers and other stakeholders. This cooperative culture is essential for maintaining the continuity of activities within a solid and cohesive team, especially during times of crisis (Dung and Giang, 2021).

6.3 Limitations and further research

This exploratory study represents an initial step in a series of investigations into crisis management strategies in the tourism and hospitality industry. To gain a more comprehensive understanding of crisis management, it would be beneficial to compare strategies employed by different hotel structures based on their resources and size (e.g., international hotel chains versus local/small hotels). Such a comparison would provide valuable insights into the specific strategies developed to manage the crisis in each context.

Additionally, conducting a customer-oriented study would be interesting to understand whether and how tourism customers’ needs and requests have evolved within the context of the pandemic. Exploring factors such as perceived risk trust in companies’

sanitary protocols, and gathering feedback on in-hotel experiences would offer valuable insights from a customer's perspective.

Furthermore, additional research would be necessary to investigate the influence of governments and hotel sector stakeholders on crisis management. Understanding the roles and contributions of these entities would contribute to a comprehensive understanding of crisis management in the tourism and hotel sector.

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