



**The Impact of Covid-19 on the Hospitality Industry and
How to Recover from Such Global Pandemic.**

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Master of Science (MSc) – International Business

***Thesis submitted in fulfillment of the requirements of the
Master of Sciences Administration (M. Sc.)***

December 2021

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ACKNOWLEDGMENTS

First and foremost, I would like to thank a model, a leader, and such an exemplary father. He was very wise, dedicated, and ethical in everything he had to do daily. He showed me that “nothing is impossible, and the sky is the limit”. Such education is priceless and allows me to go on and achieve my greatest dreams. From heaven, he is keeping an eye on his three children, and such achievements, I am sure, are making him proud and the best return on investment for all his energy, sacrifice, and hard work.

I would like to thank my mother for all the support -mentally and financially- as well as encouragement and believing in me. Through thin and thick, she pushed me above and beyond my comfort zone to be the best I could be. She will also remain the best doctor I have encountered.

I would like to dedicate this work to my baby son Jad, who came to this world last April and brought so much joy and happiness along. To my son, I will make you the proudest and will always be there for you.

My brother and sister and their family for all the support and encouragement as well: Your youngest brother is not so young anymore!

My dear professor Dr. Cohendet Patrick for the time, energy, and genuine help! I have been very privileged to learn from such a great mentor, educator, and supervisor: Merci infiniment!

Last but not least, it is with a heavy heart that I conclude my thesis as my HEC Montreal journey has been extremely rewarding and eye-opening. To all HEC personal: Thank you! I will always be very proud alumni and hopefully a very successful one.

My last dedication goes to a special person in my heart. Dr. Hasnaa Filali: Thank you for your trust, love, and care! Thank you above all for your devotion and being of service to mankind. I, too, believe in you, and I am certain very soon you will become the greatest doctor you dream of becoming.

Avant tout, je tiens à remercier un modèle, un leader et un père si exemplaire. Il était très sage, dévoué et éthique dans tout ce qu'il avait à faire quotidiennement. Il m'a montré que « rien n'est impossible, et le ciel est la limite ». Une telle éducation n'a pas de prix et me permet de continuer et de réaliser mes plus grands rêves. Du ciel, il garde un œil sur ses trois enfants, et de telles réalisations, j'en suis sûr, le rendent fier et le meilleur retour sur investissement pour toute son énergie, ses sacrifices et son travail acharné.

Je tiens à remercier ma mère pour tout le soutien -mentalement et financièrement- ainsi que les encouragements et la confiance en moi. À travers mince et épais, elle m'a poussé au-delà de ma zone de confort pour être le meilleur que je puisse être. Elle restera également le meilleur médecin que j'ai rencontré.

Je voudrais dédier ce travail à mon bébé Jad, qui est venu au monde en avril dernier et a apporté tant de joie et de bonheur. A mon fils, je ferai de toi le plus fier et serai toujours là pour toi.

Mon frère et ma sœur et leur famille pour tout le soutien et les encouragements également : votre plus jeune frère n'est plus si jeune !

Mon cher professeur Dr Cohendet Patrick pour le temps, l'énergie et l'aide sincère ! J'ai eu le privilège d'apprendre d'un si grand mentor, éducateur et superviseur : Merci infiniment !

Enfin, c'est le cœur lourd que je termine ma thèse car mon parcours à HEC Montréal a été extrêmement enrichissant et révélateur. A tous les personnels HEC : Merci ! Je serai toujours un ancien élève très fier et j'espère avoir beaucoup de succès.

Ma dernière dédicace va à une personne spéciale dans mon cœur. Dr Hasnaa Filali : Merci pour ta confiance, ton amour ! Merci avant tout pour ton dévouement et ton service à l'humanité. Moi aussi, je crois en toi, et je suis certain que très bientôt tu deviendras le plus grand médecin que tu rêves de devenir.

ABSTRACT

The COVID-19 pandemic caused a 72% drop in global tourism and a corresponding loss of \$1 trillion in tourism receipts in 2020, unprecedentedly impacting the hospitality industry (UNWTO, 2021). Imperatively, this study seeks to assess and quantify this damage in real terms and formulate a recovery from the crisis. It discusses the emergent themes in the hospitality sector, dissects the concepts of tourism crisis and disaster management, and employs scenario modelling to explain and predict scenarios in the hospitality industry. Toward this end, a purposive sample of 25 research participants, exclusively stakeholders in the hospitality industry in North America were interviewed in the study.

Data was collected through semi-structured interviews and coded using QSR NVivo qualitative computer software. Texts were grouped into categories, and themes together with their descriptions were identified.

The main themes and concepts identified were resilience, disaster, crisis, employees in tourism, and consumer psychology and behaviour. Scenario modelling was applied to project an outlook of the hospitality industry and predict various scenarios with the trajectory of the pandemic. Scenario modelling used variables under economic scenarios, epidemiological scenarios, disruptive technologies, workforce in the hospitality industry, consumer behaviour and psychology, and externalities in the hospitality industry. Modelling using linear regression predicted that tourism demand in Canada and France will recover by the first quarter of 2024. In both cases, variables under economic scenarios such as inflation, tourism demand, purchasing power, and financial planning will be the greatest determinants of recovery. Equally significant, consumer behaviour and psychology regarding the sector will define the bounce-back from the Covid-19 pandemic. Again, the hospitality industry must brace itself for disruptions in significant technological innovations and other externalities like workforce, climate change, and environment. By and large, the change will be one sustained impact of COVID-19 on the hospitality industry.

Keywords: *crisis, disaster, resilience, QSR NVivo, scenario modelling*

SOMMAIRE

La pandémie de COVID-19 a entraîné une baisse de 72 % du tourisme mondial et une perte correspondante de 1 000 milliards de dollars de recettes touristiques en 2020, ce qui a eu un impact sans précédent sur l'industrie hôtelière (OMT, 2021). Impérativement, cette étude cherche à évaluer et à quantifier ces dommages en termes réels et à formuler une reprise après la crise. Il discute des thèmes émergents dans le secteur de l'hôtellerie, dissèque les concepts de gestion des crises et des catastrophes touristiques et utilise la modélisation de scénarios pour expliquer et prédire les scénarios dans l'industrie hôtelière. À cette fin, un échantillon de 25 participants à la recherche, exclusivement des intervenants de l'industrie hôtelière en Amérique du Nord, a été interviewé dans le cadre de l'étude.

Les données ont été recueillies au moyen d'entrevues semi-structurées et codées à l'aide du logiciel informatique qualitatif QSR NVivo. Les textes ont été regroupés en catégories et les thèmes ainsi que leurs descriptions ont été identifiés.

Les principaux thèmes et concepts identifiés étaient la résilience, les catastrophes, les crises, les employés du tourisme et la psychologie et le comportement des consommateurs. La modélisation de scénarios a été appliquée pour projeter une perspective de l'industrie hôtelière et prédire divers scénarios avec la trajectoire de la pandémie. La modélisation de scénarios a utilisé des variables dans des scénarios économiques, des scénarios épidémiologiques, des technologies perturbatrices, la main-d'œuvre dans l'industrie hôtelière, le comportement et la psychologie des consommateurs, et les externalités dans l'industrie hôtelière. La modélisation à l'aide de la régression linéaire a prédit que la demande touristique au Canada et en France se redressera d'ici le premier trimestre de 2024. Dans les deux cas, les variables des scénarios économiques tels que l'inflation, la demande touristique, le pouvoir d'achat et la planification budgétaire seront les principaux déterminants de la reprise. Tout aussi important, le comportement et la psychologie des consommateurs en ce qui concerne le secteur définiront le rebond de la pandémie de Covid-19. Encore une fois, l'industrie hôtelière doit se préparer aux perturbations des grandes innovations technologiques et d'autres externalités telles que la main-d'œuvre, le changement climatique et l'environnement. Dans l'ensemble, le changement sera l'un des impacts durables de la COVID-19 sur l'industrie hôtelière.

Mots-clés : *crise, catastrophe, résilience, QSR NVivo, modélisation de scénarios*

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ACRONYMS & ABBREVIATIONS

4IR	Fourth Industrial Revolution
ADR	Average Daily Rate.
AI	Artificial Intelligence.
CAS	Complex Adaptive System.
CGE	Computable General Equilibrium Model.
CLIA	Cruise Lines International Association.
DMOs	Destination Marketing Organizations.
DSGE	Dynamic Stochastic General Equilibrium Model.
EM-DAT	The International Disaster Database.
EU	European Union.
GDP	Gross Domestic Product.
HRI	Human-Robot Interaction.
IATA	International Air Transport Association.
ICAO	International Civil Aviation Organization.
IoT	Internet of Things.
IRB	Institutional Review Board.
OECD	Organization for Economic Cooperation and Development.
QSR NVivo	A qualitative Computer Software Using in Coding and Text Analysis.
RAISA	Robotics, artificial Intelligence, and service automation
RevPAR	Revenue per Available Room.
RPKs	Revenue Passenger Kilometers.

SARS CoV-2	Severe Acute Respiratory Syndrome Coronavirus.
SMEs	Small to Medium-Sized Enterprises.
TCDM	Tourism Crisis and Disaster Management.
THL	Travel, Hospitality, and Leisure
UNCTAD	United Nations Conference on Trade and Development.
UNWTO	United Nations World Tourism Organization.
WHO	World Health Organization.
World Tourism Barometer	Index by the UNWTO Which Measures Rates of Tourism.

1 CHAPTER ONE INTRODUCTION

1.1 Introduction

This project seeks to dissect the effect of the Covid-19 pandemic on the hospitality industry and, importantly, formulate a recovery plan to weather the crisis. The foundation of this thesis is the research question, “The impact of Covid-19 pandemic on the hospitality industry and how to recover from such a global pandemic.” This research takes a two-fold approach in that it identifies the problem and then introduces the solution. This project is undertaken as the partial requirements for my master's degree in International Business at HEC Montreal.

This study focuses on the hospitality industry on a global scale and thus compares the industry in Canada and France, major tourism markets. According to the United Nations World Tourism Organization [UNWTO] (2020), pre-covid stats reported France as the world’s leading tourist destination at upwards of 90 million tourist arrivals, and Canada ranked third in the Americas with a turnover of about 22 million tourists. This study is crucial in assessing the impact of the Covid-19 pandemic on the hospitality industry.

Moreover, it discusses the aftermath of the global hospitality industry and proposes a solution to mitigate this disaster. It seeks to build on the growing body of literature in crisis and disaster management, risk management, international business, tourism, and hospitality, among other disciplines. Equally important, it gives insights into the rebound of the hospitality industry. To this end, this chapter covers the problem statement, statement of purpose, aims and objectives of the study, research questions, significance of the study, definition of key terminologies, and finally recapitulates the chapter.

1.2 Covid-19 Pandemic

The Covid-19 pandemic was caused by an outburst of the coronavirus disease 2019 (COVID-19). The coronavirus disease is caused by a virus known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a highly transmissible virus. Respiratory symptoms,

cough, difficulty in breathing, and fever were the primary characteristics of the virus. Coronavirus was first identified in Wuhan, a region of Hubei province in mainland China, in December 2019. Hitherto, it spread to the rest of the world. By the end of January 2020, it had reached the intensity of a pandemic.

It was declared a global pandemic in March 2020. As of July 2021, there have been over 180 million cases with about 4 million fatalities. Granted, the coronavirus pandemic is one of the deadliest pandemics in history and the most significant crisis post World War II (Nueangnong et al, 2020; Feehan & Apostolopoulos, 2021; Srivastava, et al; 2020 & McKeever, 2021).

Human transmission is through coming into contact with respiratory droplets, contaminated surfaces, or airborne aerosols. Responses in the form of public health protocols were imposed to curtail the virus. They include social distancing, travel restrictions, wearing masks in public areas, handwashing, avoiding overcrowding, staying at home, fumigation of services, self-isolation, and quarantine for the infected. Vaccines came to be in the late quarter of 2020. Data from late-stage clinical trials show the pioneering vaccines AstraZeneca, Pfizer BioNTech, and Moderna as being over 90% effective in prevention against the virus.

The latest yet complicated development has been the emergence of coronavirus variants. According to the World Health Organization [WHO] (2021), the causative agent for coronavirus diseases, the SARS-CoV-2 virus, evolves through mutation, bringing forth variants of the original virus. For example, recent upsurges of the pandemic in India and the United States have been brought forth by new variants. Mutations and new variants are feared to render vaccines ineffective. Even more, data is developing in light of new facts and novel discoveries in scientific research.

1.3 Problem statement

Noteworthy, the global hospitality industry has been an instrumental driver of the world's economy. Statista (2020) puts the market size of the hospitality industry before the pandemic at upwards of \$ 8 trillion. According to the United Nations, World Tourism Organization [UNWTO] (2020), global tourists' arrivals were above 1.5 billion in 2019. Furthermore, this should have increased by 4% were it not for the Covid-19 pandemic. Tourism destinations earning over \$ 1 billion had "doubled since 1998."

The effect of the Covid-19 pandemic on the hospitality industry informs a practical research problem. Covid-19 is an unprecedented disaster whose impact must be quantified and equally important, formulating a way out of the crisis. Nevertheless, with the onset of the pandemic, the hospitality sector has been disrupted and stretched to its limits.

Global tourism between January 2020 and January 2021 plummeted by 87% (UNWTO, 2021), which translated to international tourists of less than 10,000. Additionally, Asia and the Pacific were the regions hardest hit by travel restrictions. In fact, for the period between March and May 2020, the toll of Covid-19 on international tourism (a loss of \$320 billion) was "triple" that of the "2009 global financial crisis" (UNWTO, 2020).

In light of this disaster, the fragility and vulnerability of the hospitality industry came to the fore and on a global scale. Usually, the industry has been reactive to crises, as evidenced by the emergent responses. The UNWTO (2020) points out that policy responses to cushion the sector were three-pronged: "mitigate effects of the crisis, reboot the sector, and then speed up recovery."

The responses were both public-health and monetary-policy responses. The monetary policies included economic stimulus packages and securing jobs. Measures employed to protect the workforce in the sector and sustain the firms in the tourism sector by ensuring fiscal buoyancy include observance of public health protocols, job protection, and business assistance. Nevertheless, the majority of these measures can only be sustainable in the short term. Such points to the essence of disaster resilience building in the hospitality industry.

Moreover, with new variants threatening the bounce back, vaccine inequality, and production and supply chain issues, the Covid-19 pandemic could extend out. As such, the short-term disaster resilience building -- the temporary mitigating measures -- is not bound to stand the test of time. Assessing the impact requires continually calculating the scale of the crisis and revising existing tourism crisis and disaster management models. Equally key is considering how the disruption and subsequent innovation will reimagine the hospitality industry in the long term.

This research thus seeks to expand the growing body of literature, and it also provides fresh insights and perspectives of deconstructing the problem. Moreover, it further adds to the disaster resilience-building by charting a way out of the crisis (a post-crisis recovery plan). Therefore, it is

worthwhile, topical, and will provide a relevant reference point in managing this existential crisis, resilience building, and projecting the future of the hospitality industry.

1.4 Statement of Purpose

This study purposes to evaluate the impact of the Covid-19 pandemic on the hospitality industry and equally propose a recovery plan to survive the crisis. First, it has identified the biggest crisis in today's hospitality sector, then seeks to quantify by measuring the extent of the damage brought forth. The second dimension, disaster resilience building, proposes sustainable mitigatory measures in place of some of the present short-term measures. Third, the research investigates the lasting disruption of Covid-19 on the hospitality industry. Given this, the study will be insightful in the hospitality sector's resilience, rebound, and future outlook.

1.5 Aim and Objectives of the Study

This study aims to investigate the impact of the Covid-19 pandemic on the hospitality sector and formulate a recovery plan out of the crisis.

The specific objectives of the study are:

- i. Examine the state of the hospitality industry during and before the pandemic.
- ii. Apply tourism crisis and disaster management models to explain, project, model, and simulate the various scenarios in the hospitality industry.
- iii. Explore how the present disruptions will reimagine the hospitality industry in the long term.

1.6 Research Questions

- i. Focusing on France and Canada, what is the impact of the Covid-19 pandemic on the hospitality industry?
- ii. To what extent has the concept of disaster resilience building been applied in the hospitality industry?
- iii. How will the current disruption reimagine the hospitality industry in the long term?

1.7 Significance of the study

This study is of immense benefit to the scholarly community, stakeholders in the hospitality industry, and learners. This study seeks to use scientific methods in recognizing and solving a

research problem for the scholarly community. Disaster resilience building in the tourism sector is the gist of these concepts. That way, it uses research data to test various theories and concepts, thus continually sustaining the scholarly discourse. Likewise, it comes in handy for the stakeholders in hospitality, particularly managers and investors.

Insights gained from this research are substantial and could inform decision-making on organizational strategy, hospitality management, and the overall stakeholdership. Lastly, this study serves the interest of fellow learners and researchers in this field. It is not only beneficial for personal fulfillment but also becomes an implication for development through further studies.

1.8 Scope and Limitations of the study

This study comparatively looks at the hospitality industry in France and Canada. Such is an international breadth to the research problem that could assist in variety and build the research's external validity. Limitations of this study relate to the demographic aspects shared by the two nations -- Western, Industrialized, Educated, Rich, and Developed.

1.9 Definition of Key Terminologies

Covid-19 Pandemic: The pandemic of the Coronavirus disease 2019. A contagious disease that was caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

TCDM: Tourism Crisis and Disaster Management Models, using scenario-modeling and simulation to predict a situation's trajectory or outlook.

Hospitality 5.0: An imagined evolution in the hospitality industry where machines and humans interact to improve efficiency.

Short/Long Term Consequences: Effects of the crisis in the hospitality industry in the short term and the long term.

Contactless Customer Service: A kind of service in hospitality where there is reduced or no human interaction for the purposes of safety.

Delta Variant: A recent and deadliest strain of the Coronavirus.

Post-Disaster Crisis Management Stage: A set of measures is taken after a crisis has occurred.

Proactive Crisis Management Stage: A set of measures taken before a crisis has occurred, either to forestall it or duce its impact.

Reactive Crisis Management Stage: A crisis management style of taking measures after a crisis has occurred.

The Americas: North and America, altogether.

Macrolevel: Involving a global scope.

Meso-level: That which involves or occurs within the scope of an organization.

Micro-level: That which happens in the scope of an organizational unit, say a department or faculty.

Vulnerability: The susceptibility and weak nature of the tourism industry so that it is prone to crisis.

1.10 Summary of the Chapter

This chapter has brought forward the problem statement, statement of purpose, aim, and objectives of the study, research questions, significance of the study, defined the key terminologies.

2 CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter situates this study in the context of previous scholarship that relates to this topic. That said, it synthesizes all scholarly materials and research through citing, comparing, contrasting, critiquing, and connecting these pieces of scholarship to this research topic under investigation. Toward this end, it covers: the impact of COVID-19 on hospitality with reference to France and Canada; the concepts of resilience, disaster, crisis, disaster/crisis resilience building, susceptibility of tourism; and the themes of job/employee resilience, consumer behaviour and psychology, and embracing technology.

Equally important, it draws on conceptual frameworks and scenario modelling to explain various phenomena in the hospitality industry. Finally, it discusses the changing landscape in hospitality to reimagine the future of hospitality. In the end, literature gaps and a summary of the chapter are also identified.

2.2 An Overview of the hospitality industry in France

According to the UNWTO (2021), France is one of Europe's leading domestic and foreign tourism markets. Its tourism expenditure is \$52 billion, ranking number 5 worldwide, after China, the United States, Germany, and United Kingdom. Before the pandemic, the value of tourism to France's economy was 211 billion euros in 2019, and the international tourists' expenditure had exceeded 60 billion euros (Statista Research Department, 2020; UNWTO, 2021). After the pandemic, the value of the hospitality sector has tumbled to 108 billion euros. As of 2018, the contribution of tourism to France's GDP was upwards of 85 billion euros. Before the pandemic, direct and indirect jobs in the tourism sector were over 2.8 million.

Organization for Economic Cooperation and Development [OECD] (2021) statistics put the contribution of tourism to France's total GDP as 7.5%. After the onset of the COVID-19, hotel performance indicators were the following: hotel occupancy rate was just 1.8% -- less than five of 100 rooms were occupied; revenue per Available Room was down by 96.5% in March through to May and saw an average annual decrease of 61.3% for the year 2020; similarly, average daily rates for the year 2020 were also down by 18% (HospitalityON, 2021; Statista Research Department, 2021).

France's domestic tourism market remains equally lucrative, spending over 115 billion euros in 2019 on domestic holiday trips. Pre-pandemic international tourists' inflows were an estimated 200 million, with Paris ranking Europe's most visited city. In 2018 Paris had received over 40 million visitors.

In France, other tourist attraction sites are Notre Dame with 13 million visitors, EuroDisney with 15 million visitors, Eiffel tower with about 7 million visitors, and the Louvre with 8 million visitors.

2.3 An Overview of the hospitality industry in Canada

Tourism contributes "2.1%" of Canada's GDP, "3.9%" of total employment, and the tourism market had been over "\$80 billion annually." Such translates to the total value of spending on domestic and international tourism. Domestic tourism in Canada is relatively higher, accounting for 80% of total tourism revenues. However, with the pandemic, tourism spending has tumbled down to approximately \$43 billion. The largest tourism market for Canada is the United States, making up at least 655 of its internal inbound tourists. Altogether, domestic and international tourism in Canada was valued at about \$80 billion in the pre-pandemic era (Lock, 2021). Collectively, Canada's tourism market has contributed to over 750 000 direct jobs. Put simply, 1 in every 10 jobs is in the tourism sector. The jobs are distributed across the sub-sectors of accommodation, transportation, recreation and entertainment, food and beverage (Tourism HR Canada, 2021). At 55% of the jobs, the food and beverage sector are the largest employer in the tourism business.

In 2019, the contribution to the country's economy was upwards of \$30 billion. Amid this, revenue from hospitality services in the form of accommodation was over \$ 6.5 billion. The market

size of the hotels and motels had peaked at almost \$ 19 billion. With the onset of the pandemic, hotel occupancy fell to a paltry 13.6%. Travel and tourism spending dropped down to \$68 billion, with a gloom prediction that it could further down to \$42 billion (Statista Research Department, 2021). The ripple effects to other sectors can also be seen in the detail where Canadian airlines recorded a revenue drop of 90%, and accommodation fell to 71%.

Job loss surged to 1.6 million from the existing 2.1 million jobs in the pre-pandemic era. According to Destination Canada, most international inbound tourists are in Ontario, British Columbia, and Quebec. As Lock (2021) reports, the hotel's key performance indicators had shown pointed to a bleak state of hospitality. Hotel occupancy fell by “57.8%.” The average daily rate (ADR) also plunged by 29% to a low of \$ 84. Revenue per available room dropped by 70% to \$20.

The Covid-19 pandemic ravaged hotel performance in Canada if the metrics of occupancy rate, revenue per available room (RevPAR), average daily rate (ADR) are anything to go by. The occupancy was at 22.3%, which translates into a 55% drop. Average daily rates were \$85, representing a 27% drop, while revenue per available room was a mere \$18, that is, a 68% decline (Hospitalitynet, 2021; Lock, 2021).

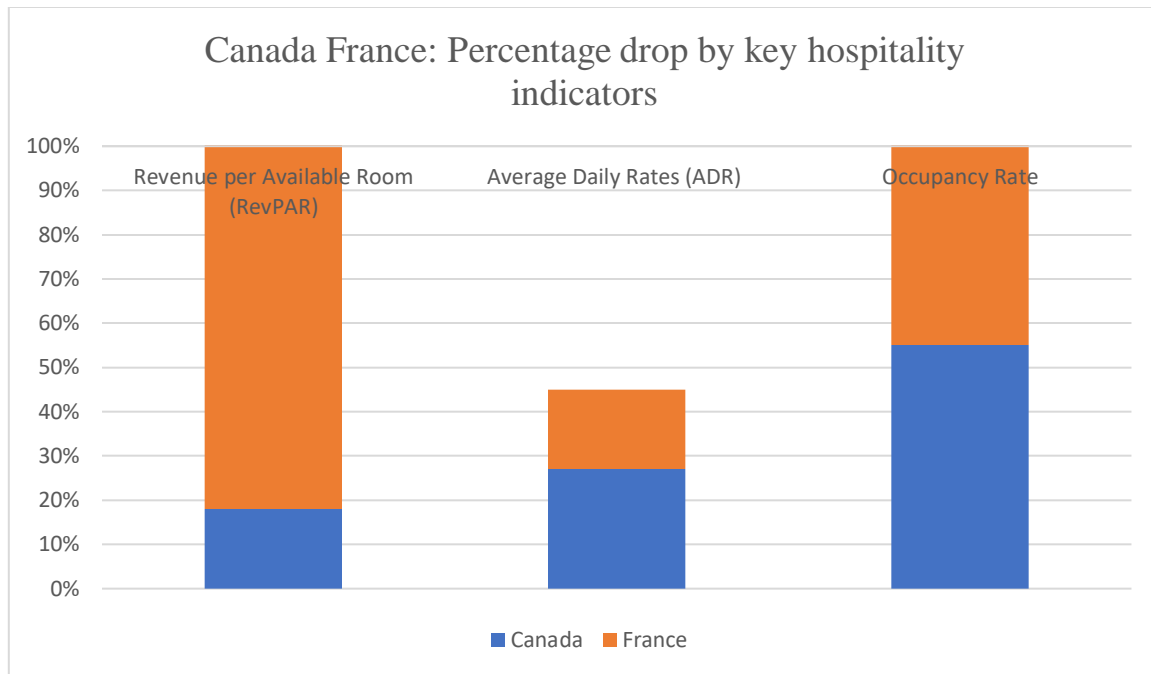


Figure 2.3.1: Percentage drop by key hospitality indicators in both Canada and France

2.4 Resilience

The resilience part covers the way out of the pandemic, that is, how to recover from the COVID-19 global pandemic. Given the solution-oriented nature of this topic, resilience is explored from the construct of resilience building.

Given the multisectoral nature of the tourism industry, resilience is determined by factors such as travel restrictions, virus containment, the coordinated response among countries, consumer confidence, flight resumption, and economic environment. There are hardly harmonized definitions of resilience in scholarship. A definition that could carry all these nuances is “to survive or get over a disaster and crisis, minimizing its impact, damage, and disruptions.” Resilience must encompass prevention and disaster preparedness, the ability to tolerate large-scale disasters, and adaptive capacity in a changing environment.

Resilience building is critical to tourism crisis and disaster management (Aldunce et al., 2014). Alonso et al (2020) have defined resilience as building "adaptive capacities" that aid in "returning to normalcy after a disturbance." Resilience thus must start with countering the effects of the stressor through adapting and adjusting. This study noted the six types of resilience as

"cultural, economic, human, nature/environmental, physical, and social capital resilience (p. 3)." Tourism crisis and disaster management models capture resilience. Significantly, these models must be efficient and feasible in varied scenarios. Such perspectives are substantial in this research since they capture the bounce back in the global tourism industry by cutting down any disruptions.

Ivkov et al. (2019) have pointed out that resilience in the hospitality sector is the capacity for the hotels to "predict, prepare, mitigate, and recover from the impact" of a disaster. The common ground in all definitions of resilience is the bounce back or the recovery from the impact of the crisis or disaster, and resilience is the second dimension to disaster resilience building. Noteworthy, resilience must be a sustained and continual process where systems are built to not only return to their original state but also to adapt to stress progressively.

Resilience encompasses the three aspects of "survival, adaptation, and innovation," write Dahles and Susilowati (2015). Brown et al. (2013) have pointed out the four domains of resilience: systems resilience, organizational resilience, community resilience, and economic resilience. In systems, resilience refers to creating systems that will change and adapt to new stresses and bring forth a new normal going forward. Such is the case of the hospitality industry, a system of tourists, hospitality staff and management, the environment, and other sectors like transport.

Organizational resilience refers to structural and administrative properties that enable organizations to weather adversities and reinvent themselves. The adaptive capacity in an organization is enhanced by organizational structure, adaptability, flexibility, and culture. Hotel chains thus must be dynamic, expedited decision-making, reduce the red tapes, and create flexibly adaptive strategies. Such is the case of adaptive capacity.

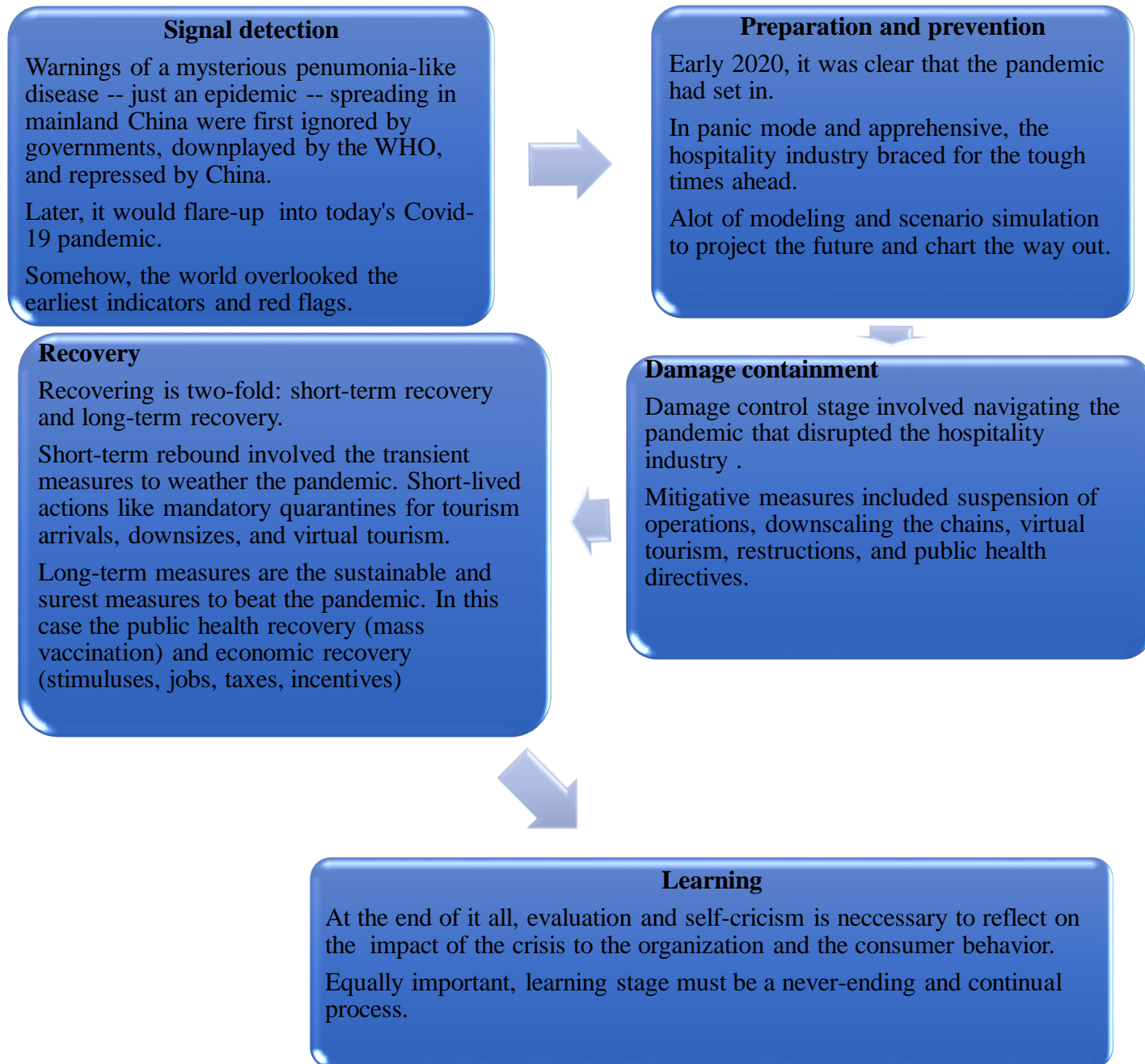


Figure 2.4.1 The Mitroff “five-stage resilience” of a crisis life-cycle. (Source: Paraskevas, & Quek, 2019).

Economic resilience in the hospitality sector is the ability of the industry to keep its financial buoyancy. Economic aspects could be viewed as a two-way street. Economic resilience in the hospitality sector will ensure that hotels leap out of a disaster or hazard to keep jobs, continue serving customers and other clients. Such can be done through sound economic planning. The tourism sector must be included in government financial recovery packages, jobs, and small-medium enterprises in the tourism sector must be protected, and the tourism value chain must be cushioned altogether. Community resilience is where a group or an organizational network can return back to normal after a disruptive disaster.

The sense of community in the hospitality sector comes from its organizational characteristics. The hospitality sector is an entity that serves the community and comes at the intersection with the broader community. The sector has a shared objective with the community in disaster response. What is more, resilience building and recovery is participatory and requires involvement by all stakeholders -- the "multifaceted nature of resilience." Given the dynamic nature of resilience, an incessant evaluation is needed to gauge the trajectory of overcoming the disruptions.

2.5 Susceptibility of tourism

Tourism is susceptible and vulnerable to crises and disasters due to the interaction and the nature of the sector as multiple stakeholders. Such was the case of the cascade effect on other sectors, notably transport. The International Civil Aviation Organization [ICAO] (2020) distills this ripple effect of the Covid-19 pandemic to the airlines as the world's passenger seats declined by 50%, about 2.7 billion in individual passengers, and the net loss for the airlines' sector was about 370 billion.

The International Air Transport Association [IATA] (2020) reports that airline revenue per kilometer expressed as revenue passenger kilometers (RPKs) dipped by 66%. International tourism receipts fell by \$1.3 trillion UNWTO (2021). The Cruise Lines International Association [CLIA] (2021) reports that before the pandemic, the cruise industry minted upward of \$150 billion and staffed about 2 million employees. However, with the dawn of the pandemic, the sector reckons with a loss of over \$50 billion and over 330000 jobs. Worse, the daily average of jobs lost to cruises, not in operation, is about 2,500 jobs.

It summarizes the sensitivity of this industry as each "1% drop in cruising" costs "9100 jobs." United States, Europe, and Canada were the most hurt regions of the cruise industry. The fragility of the hospitality sector lies in its multisectoral nature as it depends on other allied industries. To a large extent, the tourism industry composition by sector is small and medium-sized enterprises, an aspect that amplifies the vulnerability of the hospitality industry. The escalation of disaster and ripple-effect spread to and from other industries given the complex interrelationships in the tourism sector. Opportunities brought about by the Covid-19 pandemic – technology disruptions. As Suasmarez (2004) observes, tourism should be viewed as a "fragmented and diverse sector," and thus, crisis management cannot be "sectoral and homogeneous (p. 169)." Crisis management should focus on a "specific sector" instead of the whole economy (p.169). Even more, it is important to accord the tourism sector a higher preference since the return on investment for this sector is higher, albeit its vulnerabilities and fragilities.

Researchers Brown et al. (2017) have explained the concepts of disaster and resilience in the hospitality sector. To this end, they pointed out that the "vulnerabilities" in the hospitality sector as being "multi-dimensional risk factors." Vulnerabilities have made the tourism sector susceptible to the adverse effects of hazards. For example, physical infrastructure or even the environment could be affected by natural disasters and artificial hazards such as extreme weather, hurricanes, tsunamis, and pandemics that have hurt tourism. Stefan et al. (2020) add that "tourism revenue is permanently lost because of unsold capacity." Hospitality is a services sector, not a product good; hence, there is no room for unsold stock that can be disposed of after a crisis. Given the scale of this crisis, tourism revenue was permanently lost. Granted, it is vital to chart a disaster resiliency plan for the hotel industry (disaster resilience building).

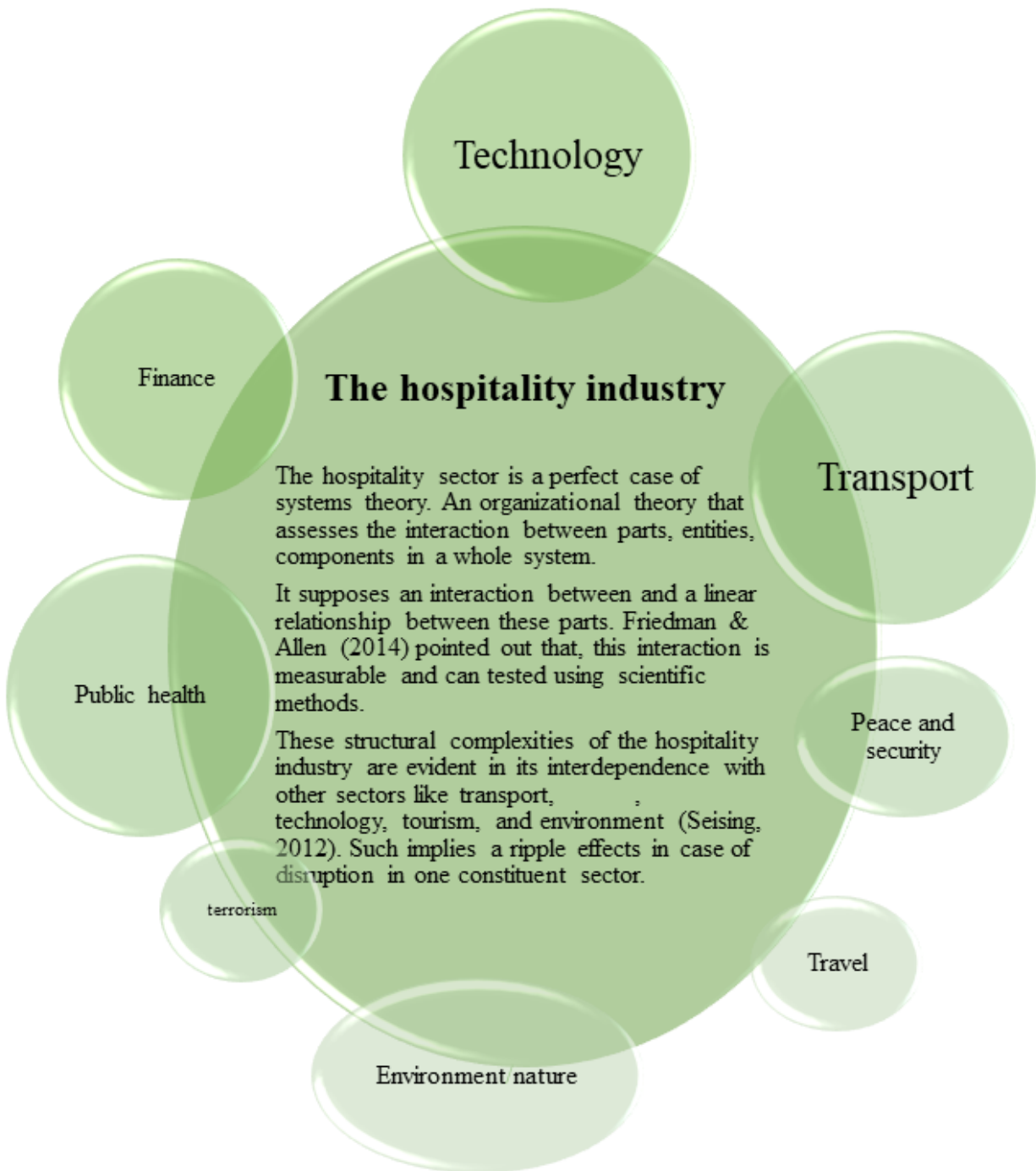


Figure 2.5.1: Hospitality as a multisectoral industry

2.6 The concept of Disaster/Crisis

Pauchant and Mitroff (1992) defined a crisis as the "disruption that physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, its existential core (p. 15)." Frequently, crisis refers to a situation where an event originates from within the organization or the industry. Often, a disaster is an entirely external, uncontrollable, catastrophic event that the organization has little control over. Even so, both crisis and disasters are collectively known as chaos owing to their "complex interrelationship in their causes and effect with humans." Disaster can be viewed as events beyond control and come from the interaction of the physical environment and the social community, and thus disasters are social disruptions. Even more, disasters could be mitigated or even avoided through human intervention. An alternative perspective of disaster is the incapacitation to manage an event.

According to Ritchie (2004), the four stages of a disaster are: "planning and preparedness (reduction stage), response, and resolution." Crisis/disaster prevention and planning involve proactive planning and the design of strategies. Issues are analyzed against the broad environment, risks are assessed, and scenarios or externalities are predicted to create contingency plans. It occurs in the pre-event stage and the prodromal stage, that is, when a disaster is just about to unfold. In the pre-event stage, there is a real possibility of averting the disaster through action plans, while in the prodromal stage, the crisis is noticed as being inevitable. Strategic implementation involves planning the maneuvers and tactical moves, selecting the best actions in any given situation, and implementing them through deliberated decision-making. Also, it involves crisis communication and control, which involves public relations plans and effective communication strategies both in the short and long term. At this point, resources are effectively managed to respond to the situation while collaboration is done with the stakeholders. It happens in the emergency and intermediate phases.

The final construct in the framework is the resolution, evaluation, and feedback. It covers returning to normalcy after the disruption -- the restoration of the sector or organization to the pre-crisis state. This point involved learning and feedback where strategies and responses are evaluated to gauge their efficacy. It happens in the resolution phase.

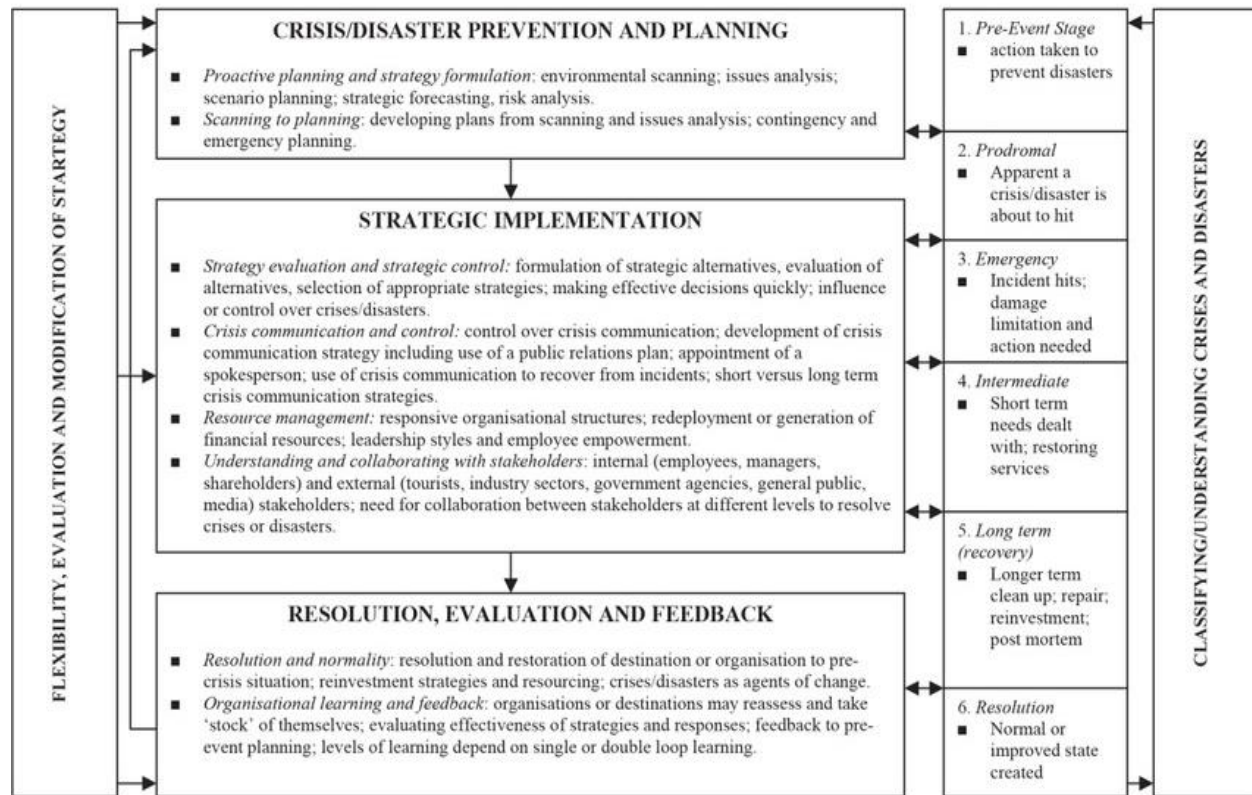


Figure 2.5.2: The crisis and disaster management strategic and holistic framework. (Source: Ritchie, 2004)

The disaster lifecycle consists of four phases, the 4R's of reduction, readiness, response, and recovery. Reduction deals with forestalling or reducing the risk, readiness is bracing for the inevitable risk, response refers to the counteraction to the risk, and recovery is the bounce back. In yet another perspective, Faulkner (2001) proposed the six phases of disaster as "pre-event, prodromal, emergency, intermediate, long-term recovery, and resolution." Pre-event deals with staving off the potential effects of a disaster through prior preparation and planning. Prodromal deals with forewarnings and preplanning to face the disaster. The emergency is the disaster responses initiatives. Intermediate is where the short-term response is rolled out, and issues start to regain a semblance. Long-term recovery is the sustenance of short-term interventions to the point of having a durable situation.

Resolution is the solution to the issues which pave the way for resumption to normalcy. In this case, the covid-19 pandemic is a case of a sustained crisis since it has lasted for a year and beyond. Such calls for efficient crisis leadership among stakeholders in the industry. The capacity to manage tourism crises, risks, and disasters should be an integral element of hospitality management. The best way to manage a crisis is crisis readiness. Planning and preparedness thus must be in the strategic plan since it is the safest way to handle the crisis. With crisis readiness, the disaster is anticipated, and thus, a coordinated response is put in the face of the disaster, or the disaster is averted altogether.

According to Sausmarez (2004), on a "macro-level," tourism has focused on the "response to the crisis" instead of "anticipation of a crisis." Mitroff et al. (1996) note that research in tourism crisis and disaster management has been on an organizational level (meso), not a macro-level. Crisis management at the organizational level (meso-level) can be expedited due to efficiency. At an organizational level, decision-making is done with efficiency, and it is in a specified setting; thus, decisions are tailored at each different level. It takes into account the nuances and differences of some areas over others. Crisis management at the macro-level, that is, macro-level proactive crisis management, could be implemented easier than crisis management at the organizational level. At the macro-level, crisis management is fraught by a broader and expansive setting that challenges inefficient decision-making and implementation. Fails to observe the nuances of some places over others (blanket decisions). Communication, coordination of efforts, and concerted responses are complicated at a national level due to bureaucracy and blanket decisions large expanse. Almost always, the national disaster response strategy is often a single sectoral policy and fails to tailor these measures at a local level.

Relatedly, there is the capacity and challenges in regional cooperation. A case example, checking the COVID-19 pandemic failed in the EU and the Americas due to lack of regional cooperation and politics. From a theoretical perspective, the effectiveness of macro-level crisis management plans may not be readily tested and evaluated through modelling, simulation, and mock scenarios. Bureaucracy and the political environment present a massive challenge to political authority and the flow of information.

The credibility of information was questionable in autocratic regimes like China. The problem of crisis organization at the macro level was thus the information disorders -- transparency of information and keeping public informed, managing public perceptions. It is worth noting that they should be a shared ground at both the macro, micro, and meso levels through collective building. Cooperation between the private sector and the governments became an essential factor in managing the pandemic.

Pauchant and Mitroff (1992) have asserted that crisis management is divided into two phases – the proactive stage and the reactive stage. In the proactive stage, an imminent crisis is identified, and efforts are made to avert it wholly or minimize its impact should it strike. In the reactive stage, the damage is assessed, controlled, and the recovery plan is drawn. Proactive crisis management is implemented in scenarios where a crisis must be entirely debarred – for example, in a nuclear plant where a crisis will have a devastating impact on human life. When the crisis might not be entirely averted, the reactive stage becomes essential. The reactive stage drives the process of an efficient and expedited recovery. Another researcher, Siomkos (1992), has categorized crises according to the pre-crisis period duration. As such, there are "discrete crises and continuous crises." There is a slight warning yet a considerable impact in a discrete crisis – for example, a plane crash. In ongoing crises, the damage builds up gradually, and then the full extent of this damage becomes evident – for example, change in consumer behaviour or, in this case, the development of the COVID-19 epidemic in China to a full-scale global pandemic.

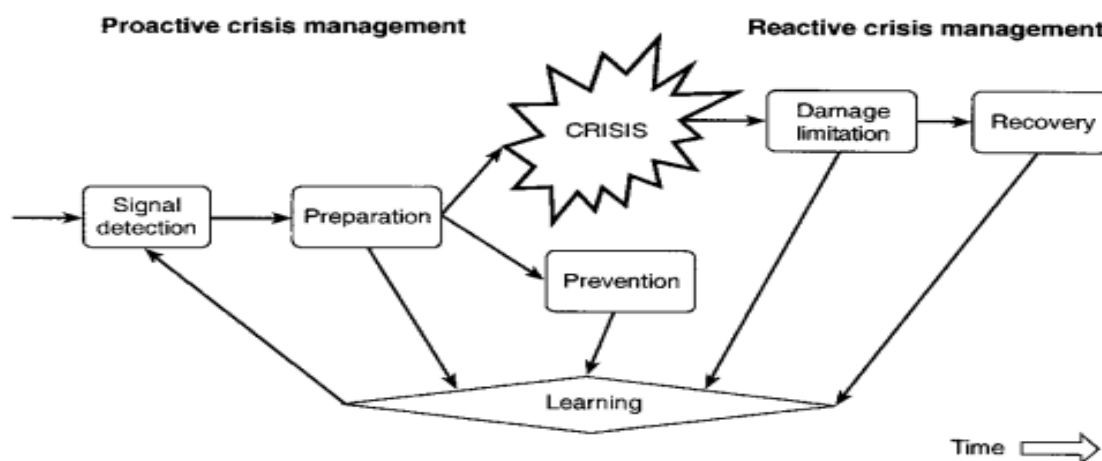


Figure 2.5.3: Figure 2.4: The components of crisis management based on Pauchant and Mitroff (1992). (Source: Sausmarez, 2007, p. 159).

Holusha and Meyers (2018) have noted that the Coronavirus was a low probability (low chances of happening), high consequence event (far-reaching and an astronomical impact). Where resilience is the capacity to reorganize and prepare resources to respond to a particular danger, anticipation has become critical in risk reduction theories since it focuses on preventing harm before it happens. Anticipation is critical in predicting hazards and assists in making uncertainties “knowable and certain”. Anticipation is the precursor of resilience -- the bounce-back.

Frequently, the tourism sector has been reactive to crisis and disaster (Khalid et al., 2021; Prideaux, 2019). Recent disasters, whether pandemics or natural catastrophes like bushfires, hurricanes, landslides, tsunamis, and earthquakes, have occasioned a cessation of tourism. Epidemics in the 21st century like the SARS outbreak 2002, Ebola epidemic, dengue fever, Middle East respiratory syndrome (MERS-CoV) have always arrested tourism. Disaster in tourism has failed to be proactive by acting in foresight through preparedness planning. Instead, it has been focused on response and recovery (post-disaster management). Disaster risk reduction should take a slant toward fore planning. Planning assists in a faster response, decision-making, and alleviating the impact. For both France and Canada, the first step was to evaluate the importance of the hospitality industry to the economy – a sectoral, organizational, and individual approach of its profitability, contribution to the GDP, employment, jobs, costs, and taxes. Such a theoretical framework is critical since it helps to deconstruct and understand natural phenomena (Ellis & Herbert, 2011). This research scenario on the Covid-19 pandemic in the hospitality sector helps understand the phenomenon and, importantly, the responses captured in mitigating the crisis (the resilience).

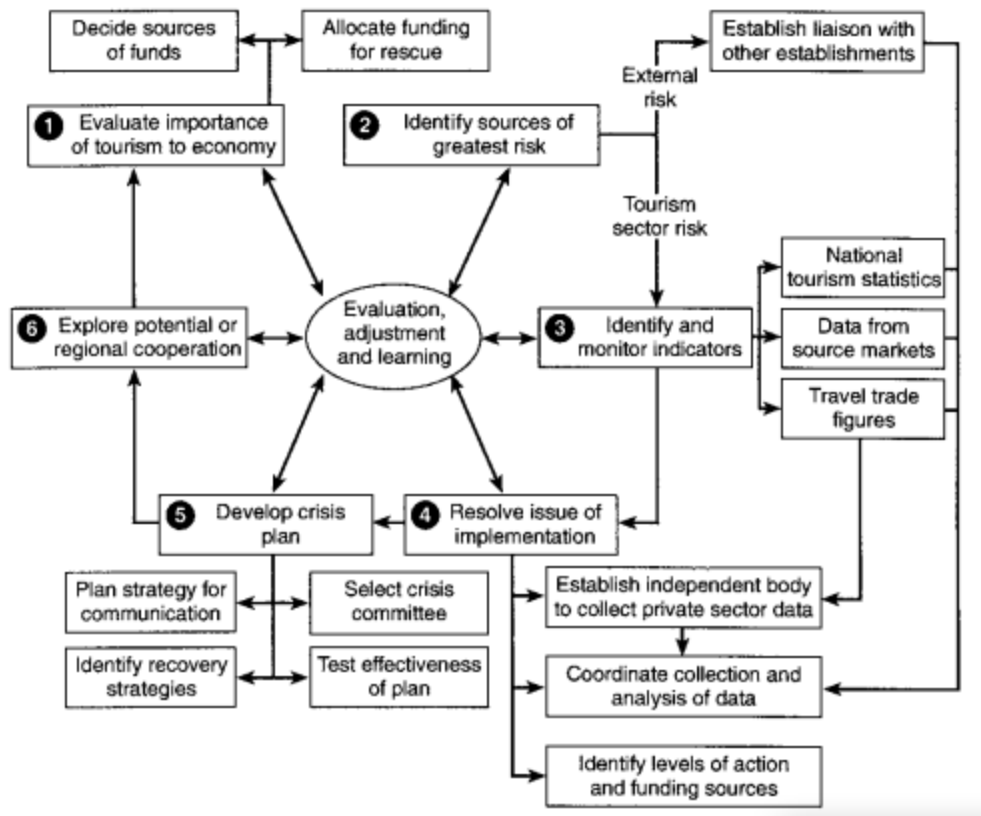


Figure 2.5.4: Steps in development of a crisis management policy. (Source: Sausmarez, 2007)

2.6 Job and employee resilience

As Ivkov et al. (2019) point out, tourism employees are deeply involved in the production of hospitality services and therefore are at risk. Granted, the employees in tourism make up those external factors and contingencies that can only add to the fragility of the hospitality sector. Such calls for the place of employee resilience. Noteworthy, employee resilience and organizational resilience as the mediating factor in disruption and innovation. As Senbeto and Hon (2019) state, employees are the "linchpin for innovation." Innovation requires employees to tackle the challenges in the working environment, create ideas, challenge the status quo, take risks. The management supports the whole process by encouraging motivation and creating buy-in.

Resilience at the workplace is contingent on factors in the internal organization – capacity for innovation, managerial support, resources, and the organizational proclivity for change. That said, employee resilience depends on assistance from human resource management and organizational culture. In a service industry like hospitality is, the "risk of service innovation" is unusually high (Senbeto & Hone, 2016, p. 6). Researchers Aguir-Quintana et al. (2021) have added that job insecurity and employee psychological well-being are essential determinants of employee resilience.

That said, employee capacity to get back to work and perform as was before is based on their physical and mental well-being and the employment safety-net. In this sense, the psychological dimension of resilience is raised as the psychological ability of an employee to get over these stressors, more so, psychological well-being that affects their performance at the workplace.

According to the work adaptation theory, employees seek to maintain an intertwined relationship with their jobs and this job satisfaction depends on the extent to which one's needs, values, and interests are realized in the workplace. Equally important, an employee must match the skills and competencies for their roles. As such, the balance between individual needs, values, and interests versus skills and competencies creates and maintains job satisfaction. In the event of a change at the workplace, this order and balance are upset. As employees adjust their skills and competencies to match new responsibilities, there could be the knock-on effects like resistance to change, demoralization, and poor job satisfaction.

Employees' resistance to change is personal feelings and based on their beliefs. These six beliefs include: "the traditional model already meets the employee's needs, change might disrupt meeting these needs, risk-benefit analysis tends toward the risks, change is the exploitation of the employee, the organization might mismanage the change, and change will fail (Bresciani et al., 2009)."

Considering this theory of adaptation at the workplace, traditionally steeped organizations will face difficulties reckoning with change. The hospitality industry must thus have a progressive organizational culture and be willing to accommodate change. Over the years, change has not only been inevitable but also been an integral element of resilience.

At the heart of this change, job satisfaction, which is a product of the balance between the employees' needs, values, and interests' vis a vis their job description, competencies, and responsibilities, is the measure of job performance. In the fast-paced hospitality sector, continual work adjustment and adaptive performance are crucial since the sector is fragile and prone to change. The most evident job demand in the sector is the present tourism environment with the Covid-19 crisis.

2.7 Consumer psychology and behaviour

Customer perception in the hospitality sector has gained prominence during the pandemic. As Line and Hanks (2018) have asserted, the concept of servicescape and its role in consumption has proven relevant in hospitality research. Environmental psychology is the impact of space on human behaviour. The physical environment acts as a stimulus, triggering a response from the customers. Relatedly, the whole environment comprises all components in the sector -- consisting of the customers, employees, spatial arrangement, signage, and ambiance. In the hospitality industry, it goes beyond the physical environment where the hospitality services are delivered to the social characteristics of the environment. They add that it is identified by the "observed characteristics" of customers and employees alike in the "service environment." Remarkably, the Covid-19 pandemic has redefined the servicescape and the overall function of the environment in the consumption of hospitality services.

The public health protocols have seen an interruption in the hospitality sector's physical/environmental and social nature of consumption of services. Subsequently, the psychological factors like consumer perceptions, thoughts, feelings, attitudes, and behaviours have equally changed. The interactions between the customer, employee, and the environment have been virtual, that is, computer-mediated online experiences, as is the case in online tourism. Servicescape, in its holistic nature, has been disrupted by the Covid-19 pandemic.

In another dimension, consumer psychology and behaviour might have been disturbed by the pandemic. In certainty, health risks have exceptionally shaped consumer behaviour. Consumer confidence in the service sector has been wrought in pessimism, skepticism, and cynicism. Gursoy & Chi (2020) have found out that services like sit-down restaurants, travelling, hotel booking, and accommodation might take time to recover.

Consumer skepticism and aversion to spending on tourism will hurt the hospitality sector. Such calls for “behavioral and operational hospitality” marketing, crucial implications on branding and marketing.

Sarkar et al. (2021) have explored the effect of branding in the services industry and how it bears on consumer attitudes, emotions, and behaviours. The Covid-19 pandemic caused a near-service failure or a complete service failure in the hospitality industry. The effect on the market could be consumer dissatisfaction, brand hate, and brand retaliation. Given this, the service recovery of the hospitality industry will significantly depend on branding to restore consumer confidence.

Researchers Li et al. (2021) emphasize that safety should be the watchword in branding the service industry during the post-covid time. The perception of safety by the customer is the ultimate selling point in the hospitality sector. In the first attempt to restore safety, governments requisitioned some hotels to host visitors as quarantine facilities (Government of Canada, 2021). Other safety cues include vaccination, contactless service, technology, uncrowded destinations, and online service consumption.

When consumer behaviour was greatly influenced by the communication during the pandemic, restoring consumer confidence must take center stage in branding. The rampant rise of fake news, sensational and negative coverage might have caused public panic and a corresponding fear of travel (Yu et al., 2020). Tourism as a service is reeling from the crush in demand of the product. Fear of travel that captures the safety aspect, shrinking purchasing power, uncertainty in return to normalcy, and travel restrictions are factors attributed to the market shock of low tourism demand (UNWTO, 2021). The way out of this shock is to build confidence among workers and markets. Such can be done by adopting safety and consumer protection measures, credible information from destinations, broadening tourism offerings, innovation, and digitalization.

Restoring optimism and consumer confidence and shaping consumer sentiment to have a cheerful disposition to tourism. Destination Marketing Organizations (DMOs). The UNWTO (2021) proposes that destination marketing must involve restoring confidence in the disrupted tourism market. Confidence must be evident in "consumer safety and protection, trusted information on health and safety, diversification of tourism services, innovation and digitization."

On the contrary viewpoint, research has foreseen the phenomenon of “revenge tourism” (Abdullah, 2021). Researchers opine that people have been confined at homes for long after the lockdowns that characterized 2020 and 2021. Therefore, there is a yearning to take a break from this tedium and explore places. Again, the lockdowns slowed spending, and thus these pent-up savings could be used in travelling (Economist, 2021).

Consumer response and adaptation of disruptive technologies brought forth by the Covid-19 pandemic is another element of consumer behaviour psychology. Drawing from the technological adoption lifecycle, there are the innovators, early adopters, early majority, the late majority, and the laggards (Sääksjärvi & Hellén, 2019). The popularity of technologies like Artificial intelligence, robotics, big data, and automation will exist in a continuum. AI is integrated into the tourism industry to upscale consumer experience and efficiency of service delivery. Travel arrangements, mediating human touch (chatbots and smart systems reduce the need for human actors), machine learning to understand consumer behaviour in the service sector, and automation in the service sector are some of the areas (Lisi & Esposito, 2015; Zsarnocky, 2017, & Samala et al., 2019). On one end, there could be rapid adoption and acceptance owing to efficiencies brought by these technologies. On the other end, delayed adoption is due to complexity and unfamiliarity (Jiang & Weng, 2020). Technology will bear on the consumer experience in the hospitality sector.

2.8 Disruptive technologies in hospitality

The Covid-19 pandemic has necessitated a rethink of consumer experience design. Bonfanti et al. (2021) assert that hotel managers are informed by “safety” in redesigning the consumer experience. Technology and innovation have come up to ensure a safe consumer experience and efficiency of the hospitality service. The safety areas are “hygiene, internal work reorganization, services offerings reshuffles, technology, and digital innovations, customer wait times, staff training, and effective communication.” Such will renew customer experience in terms of “reassurance, quickness, proximity, and intimacy (p. 8).” Given the "new normal" phenomenon in hospitality, hotel managers have prioritized safety for their customers and employees.

Additionally, they have explored safety in its “cognitive and affective” aspects through the post-service customer experience. Intimacy refers to creating an environment and space that caters to interpersonal relationships despite the social distancing measures. In this case, positive reassurance communication has become critical since it raises consumer confidence. Speed and proximity in customer experience ensure expedited and efficient delivery of services.

The current literature has also acknowledged the place of technology as a tool of resilience. Zeng et al. (2020) argued that the silver lining in the pandemic was the adoption of technology, notably robotics. Tourism has evolved from the "high-touch" and tactile intensive industry to a "high-tech" as attested by the new trend "human-robot interaction (HRI)." Technology is a utility to fine-tune the customer experience, especially by averting the health risks posed by the pandemic. Shin & Kang (2020) have noted that hoteliers have tapped into tech to observe physical distancing and hygiene standards. Markedly, technology will reduce physical contact and interaction between customers and employees, boosting public health safety (Lee & Trimi, 2021). It is worth considering the managerial and operational implications of using robotics and Artificial Intelligence in management (Kim et al., 2021).

The menace that they could replace human labor is real, but on the flip side, it could improve the quality of service and public health. By and large, technology and innovation will herald a newer dispensation, "the hospitality 5.0," which will be distinguished by cutting-edge "operational efficiency," write Pillai et al. (2021). For example, the gist of most public-health protocols is reducing human contact. That said, technological applications like Artificial intelligence, service robots, cashless payment systems, and virtual conferencing will come in place.

2.9 Conceptual Framework

2.9.1 Systems theory in tourism

The systems theory in tourism makes the hospitality sector a typical complex adaptive system (CAS). The complex systems theory implies that interactions within parts of a whole and the accompanying feedback loops trigger changes in systems. The complex systems theory states that "the society does not evolve rather reaches a state of increased complexity, structural differentiation which is adapting the systems to the environment through the changes in in the internal complexity agents and components and parts."

Following the disruption of the global hospitality industry, the global hospitality industry reaches the "edge of chaos." At this edge of chaos, innovations come to be. In part, the innovations are captured in new developments in today's world like virtual tourism, contactless tourism, artificial intelligence, robotics, among others embodied in hospitality 5.0.

— Complex Adaptive System (CAS) —



Figure 2.9.1: Complex Adaptive systems illustrated. (Source: Eoyang, 2020)

The hospitality sector is an intricate system made up of "diverse, specialized agents, components and parts" that "collectively work in harmony (De Rider et al., 2017)." Researchers Jabon et al. (2019) add that complex adaptive systems are hierarchical, with larger systems fitted against larger systems, ensuring interaction. Such creates the concept of scale and chaos in the systems. A small change in one system may spread to the others, bringing a widely varied change. In precise terms, the global hospitality industry comprises small to medium-sized enterprises and large businesses (Sausmarez, 2004), all of them interacting in the single environment of the global hospitality industry. Amid this are the other interdependent sectors like public health and transport, environment, which could trigger a change in the holistic system. For the global hospitality sector, the cause and effect are not a simple relationship but rather a complex, dynamic and non-linear one.

Complex Adaptive Systems (CAS) is a closely related concept, which explains agents that “collectively combine” producing “global properties (Carmichael & Hadzikadic, 2019).” In the case of the Covid-19 pandemic, the combined agents were the coronavirus disease, lack of information flow, ignorance by health officials, delayed responses, late enforcement of public health protocols, and failures by world leaders and public health officials. In this regard, the hospitality industry was a system that was initially resilient to these external forces at their initial stages. Even so, with the continued spread of the pandemic, the system reached a threshold and tipping point, slowing, and shutting down. As such, the complex adaptive systems framework explains the phenomena in the hospitality industry. Hotel chains like Marriot, Hilton, and Accor tried to stay afloat by managing these external forces, then reached the elastic limit and snapped as of April 2020.

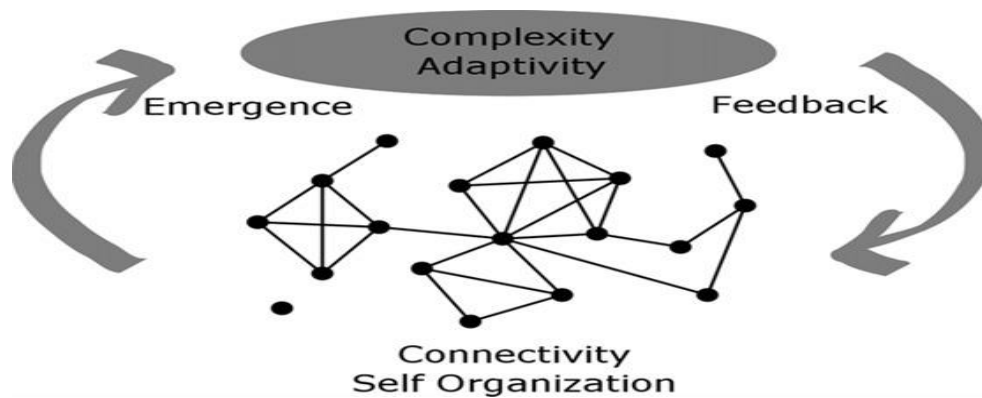


Figure 2.9.2: Resilience in complex adaptive systems. (Source: Hilpert, 2016)

Equally important, the adaptive feature of these Complex Adaptive Systems means that they can change according to circumstances. The adaptive capability is the accommodative feature and the resilience factor in the hospitality industry. Comfort (1994) argues that resilience in complex adaptive systems involves information sharing. Information overarches the coupled concepts of anticipation-resilience and chaos-order. In the case of the global hospitality industry in early 2020, information was scant since it was repressed by China, the country of origin of the virus.

2.10 Scenario-modeling

Scenario modelling is vital in examining the efficiency of tourism crisis and disaster management models. Moreover, it helps in quantifying the extent of the damage in empirical and relatable terms. Importantly, it measures the impact of the COVID-19 pandemic in short-term and long-term consequences. The decline in tourism arrivals between March and December 2020 was 84% (UNWTO, 2021). Tourism is still reeling from hesitancy to long-distance travel. On the bright side, vaccination continues to be the breakthrough to the resumption of tourism. Tourists prefer closer destinations with high vaccination rates. Vaccinated people as a share of the population are safer.

As Reuters (2021) observes, the more affluent and developed world has the upper hand in the recovery and resumption of tourism. The same applies to some heavily tourism reliant economies like Thailand, Singapore, Morocco, Saudi Arabia, Qatar, and the United Arab Emirates. On the other end of the spectrum, the developing world has been hampered by vaccine inequity, and returning to normalcy might be impossible.

UNCTAD (2021) has modelled the economic impact of the pandemic on tourism – an estimated between “\$1.7 tr. -- \$2.4 tr” in 2021. The UNCTAD (2021) employed the Computable General Equilibrium models, which shows multisectoral interrelationships in tourism. It showed moderate (optimistic), intermediate and dramatic (pessimistic) scenarios. Simulations from United Nations Conference on Trade and Development [UNCTAD] (2021) and the UNWTO World Tourism Barometer (2021) have projected three scenarios. In the worst-case scenario, tourist arrivals will tumble by 75%, amounting to only \$948 billion in tourism receipts and a \$2.4 trillion loss in the GDP. An in-between scenario projects that tourist arrivals will sink by 63% and just \$695 billion in tourism receipts and shrink the GDP by \$1.7 trillion. The third scenario considers determinants such as vaccination, domestic tourism, regional tourism, economic environment, and virus containment. In this case, countries with the lowest rates of vaccine intake would risk a 75% reduction in tourism, while those with the highest vaccination will face a 37% reduction.

McKibbin & Fernando (2020) have employed a computable general equilibrium macroeconomic model, giving rise to mild and severe scenarios. It is a hybrid of both the dynamic stochastic general equilibrium (DSGE) Model and the Computable General Equilibrium (CGE) Model. They emphasized that epidemiological modelling must intervene in scenario modelling for

the hospitality sector. Epidemiological scenario modelling is primarily the "epidemiological assumptions" based on previous pandemics. World Health Organization [WHO] (2021) reports that COVID-19 had infected over 215 million people globally and killed over 4.5 million by the end of August 2021.

Forecasting is crucial to predict scenarios that will befall the hospitality sector and the sector's outlook in any turn by the pandemic. Decision-making should be informed of forecasting under the best-case, worst-case, and in-between scenarios (Fotiadis et al., 2021). Likewise, forecasting must account for the negative multiplier effect of tourism on supporting industries. Sectors and sub-sectors linked to the hospitality industry include accommodation, foods, and beverage industries.

2.11 The future of the hospitality industry

The idea of long Covid is where the effects of COVID-19 will be felt even after opening up the economy and the assumption of a semblance in the hospitality sector (The Economist, 2021). For instance, the recession of the COVID-19 pandemic still lingers on. Economies that were hit hardest might take time to recover, thus a delayed bounce-back. Still, with the microeconomics and macroeconomics of demand for tourism services, inflation, and consumer purchasing power, return to normalcy might be a daunting task -- the downsides of stimulus packages, bailouts, and furlough schemes, economic mitigation. The negative impact of some economic mitigative measures, disruptions to the global supply chain, and fiscal planning on the small-medium economies of the world might outlive the COVID-19 pandemic.

Again, the variants of concern like the Delta variant threaten to relapse, the steps taken to bounce back. That said, the hospitality industry must reckon with the real and ever-persistent ghost of the COVID-19 pandemic. Hao et al. (2020) assessed the impact of Covid-19, designed a pandemic management framework, and formulated post-covid-19 strategies with a focus on China's hotel industry. The most devastating impact came from the suspension of tourism and travel, and the pandemic management framework was drawn from tourism crisis and disaster management models and theories. Noteworthy, these researchers predicted a post-pandemic outlook of China's hospitality sector. It entails four new aspects: "diversification of services, rethinking product design and investment, expedited adoption of technology, and market shifts." Given this, changes and innovation will continue to redefine hospitality.

Technology will be the ultimate groundbreaker in hospitality. Researchers have imagined the revolutionization of IT in hospitality and tourism, which will spawn hospitality 5.0. Information Technology will revolutionize the hospitality industry through creative disruption to bring a different generation of hospitality services. Even so, technological change in the hospitality industry must be oriented toward the consumer, where technology is used to create a customized and personalized customer experience (Pillai et al., 2020; Lau, 2020). Examples of disruptive technologies in hospitality are “contactless customer service, Internet of Things (IoT), robotics” to improve customer service efficiency. The rapid evolution of technologies will intervene in consumer service, ensuring the efficiency of operations in the hospitality sector. To illustrate this is the case of Airbnb, a disruptive case to the hotel business model as we know it. It introduced new ways of accommodation for visitors, that is, short-term rentals. As Mauguin (2020) notes, in the era of the Covid-19 pandemic, Airbnb “reacted swiftly” innovated through putting some of its services online, and reinvented their services – local travel, more extended stays, communication with guests, capitalizing on last-minute bookings, improving the guests' experience.

Profoundly, the significance of the workforce in hospitality has gained prominence. COVID-19 pandemic caused upheavals at the workplace and overshadowed traditional human labor. Conventional hospitality management has looked at employees as work machines and costs to be minimized. At the advent of the COVID-19 pandemic, there came a wave of resignation in many labor sectors. In the United States, resignations and job openings were at a record high, yet companies grappled with finding talent (Kelly, 2021; Morath, 2021). Deductively, employee dissatisfaction must be resolved in the workplace, thus focusing on the worker. In the hospitality industry, emphasizing human resources means looking at themes like work-life balance, job security, and employee rights in today's workstations.

Climate change is another external force that is reshaping the hospitality sector. Natural disasters in the hospitality industry have made it necessary for managers to be proactive to change. Notably, human activity is responsible for adverse climate change (Youssef & Zeqiri, 2020). The hospitality industry must thus factor in environmental protection by improving energy efficiency, recycling, and redesigning hospitality services and technologies (Pandy, 2017; Jiricka-Purrer, 2020). For example, the industry can adopt liquified natural gas to replace fossil fuels, water treatment systems, and clean carbon technologies.

Still, anthropogenic climate change has had devastating impacts on tourism sites -- flooding and rising sea levels. Li et al. (2021) have proposed that tourism must brace itself for climate adaptation to protect cultural heritage sites in the coastal regions.

Noteworthy, the impact of climate change on cultural resources is devastating, and it is thus crucial that these heritage sites be preserved. They further added that "climate adaptation planning" must take a trifurcated approach of "optimization of resource value and cost-efficiency" while "minimizing vulnerability."

In part, a majority of the cataclysmic events in nature have been triggered by human activity. According to The International Disaster Database [EM-DAT] (n.d.), natural disasters are grouped into geophysical, meteorological, hydrological, climatological, biological, and extraterrestrial. For example, earthquakes, tsunamis, volcanic eruptions, hurricanes, floods, wildfires. Many of these can be traced back to human activity, and thus imperative for change of human actions to ensure the protection of the planet. Human activity in the ecosystem has thus been a concern and could affect hospitality. The prevalence of epidemics and pandemics in the 21st century has been largely anthropogenic – SARS, Ebola, Marburg, Zika (Petersen et al. 2016). A case in point is the Covid-19 pandemic, which believed that the first case of human contact with the Coronavirus happened in a food market (Cioti et al., 2020). Coronavirus was epidemiologically traced back to the Huanan Seafood Wholesale Market.

From the foregoing, the identity of the hospitality industry is certainly changing. As Stefan et al. (2020) point out, it is time to challenge the point of view that success in tourism means any growth in the volume of visitors -- an "increase in the numbers of visitors." Present themes in hospitality and tourism such as safety, overcrowding, over-tourism, scarcity, climate change, environmental protection have necessitated a need to reconsider tourism. The problem of volume growth by visitors, in part driven by tourism corporations and enterprises. The business model of more arrivals translates to more visitors, and by extension, more profits. A trend that will challenge this is travel in the era of the COVID-19 pandemic --for example, the fate of business travel. Disruption by team collaboration and conferencing technology has downsized non-essential travel. With developments as this, tourism might not necessarily be defined by tourists' total turnover.

Domestic tourism is predicted to cushion much of tourism since the adverse impact of globalization hammered the tourism sector. Tourism has suffered from globalization since the COVID-19 pandemic has been one of the global risks for tourism. Others include terrorism and natural hazards. In an interdependent and interconnected world, the ripple effect and escalation of small-scale crises will always hit hard the hospitality industry. To avoid the entire problem of external pressures, governments are investing in domestic tourism. Countries that generate the most substantial amount of their tourism receipts from domestic tourism include China, India, and America.

Another strain of tourism is eco-tourism, a kind of tourism centered on job creation and conservation activities like waste management, environmental protection, and climate change awareness (Harbor & Hunt, 2019; Shasha et al., 2020). The objective of eco-tourism is to ensure sustainable tourism. Sustainable tourism considers environmental protection (carbon emissions, clean energy, and protection of land and marine sources). Also, it puts a premium on social aspects of tourism (decent work of employees, cultural heritage, and community social responsibilities). Lastly, sustainable tourism focuses on economic sustainability through employment, business models in hospitality, and the industrial viability of the sector. Tourists are becoming more aware of the services they consume and getting more conscious about their planet, and eco-tourism is gaining relevance. Dark tourism is another strand of tourism. Here, disaster sites such as genocide, terrorist attacks, crime, and incarceration are commodified and sold to visitors (Martini & Buda, 2018; Sun & Lv, 2021). They are used as memorials and commemorating historical events—such kind of tourism aids in revisiting history. Although commodification of these sites has been a moral and ethical dilemma, dark tourism continues to help in the functions of history and record in society and champion social causes. Lastly, another aspect of tourism is “medical tourism,” where people travel abroad to seek medical treatment. It is also known as health tourism, and it focuses on medical treatments. The global medical tourism market was between \$60 and \$70 billion as of 2015. Visitors from developed countries to less developed countries often search for cheaper medical options than at home. The top destinations are Brazil, Taiwan, Mexico, Costa Rica, Turkey, Cuba, Canada, Singapore, Thailand, India, and Israel (Yang, 2021). Globalization of healthcare and patient mobility across international borders are the main drivers of medical tourism.

2.12 Research Gaps

This research has acknowledged the continual extant gap in knowledge on the impact of covid-9 on the hospitality industry and the recovery. Presently, the world has not emerged from the Covid-19 pandemic, and it is still unfolding; new developments in information and research make this a fluid research area. Novel information and facts continue to emerge, theoretical and conceptual models are evolving, groundbreaking scientific discoveries are rewriting the scientific literature (Myers et al., 2020; Sohrabi et al. 2021; Ciotti et al., 2020). However, the growing body of literature can only improve policing, decision-making, and predicting the future.

It is worth noting that tourism crisis and disaster management has been a gray area in research, as evidenced by the scant literature on the area (Kunwar, 2015; Aliperti et al., 2019; Ritchie, 2004; Carlsen & Liburd, 2008; Ritchie, 2009; Ritchie & Jiang, 2019). Still, the majority of tourism crisis and disaster management models lack efficiency. This research draws from conceptual and theoretical models in disaster and crisis management and related disciplines to give a fresh point of view to this discourse. To this end, it seeks to retest some theories and concepts in this area and gauge their validity and relevance to explain the current case scenario. Such a critical and meta-analytical approach will be crucial in synthesizing and comparing evidence on these topics.

Previous research has fallen short of quantifying the extent of the damage of the Covid-19 pandemic, and even more, explaining it in practical terms. Researchers have had a tunnel vision of the impact of the Covid-19 pandemic on hospitality. The problem of tourism crisis and disaster management is not canvassed in-depth. The majority of literature tends toward response and recovery, not phases such as planning and preparedness or resolution and recovery (Ritchie & Jiang, 2019). Such is the relevance of this research. It seeks to compensate for the knowledge gap in the stages with a deficient scope and depth. Resolution and reflection, for instance, are covered through projecting and predicting an outlook of the hospitality industry in the posterity. The preparedness and planning stage is boosted by assessing the hospitality industry's impact in France and Canada.

Such a double-sided approach helps in retrospectively looking at the hospitality industry before the pandemic. Equally important, this research also grows the extant literature on the response and recovery phase by testing the theories and concepts of disaster management theories.

It also does scenario modelling to anticipate the shape of the industry under various scenarios. Remarkably, this pandemic has no precedent in the recent past hence rendering comparative studies limited to draw parallels. The Covid-19 pandemic cannot be compared to any other crisis in the history of the world post World War II (OECD, 2021). Accordingly, they have failed to measure it and demonstrate what it means for the industry (short-long term consequences).

The most prominent research themes have been: tourism crisis and disaster management, resilience theories, the overlap of tourism with other corporate sectors, effects of the pandemic on consumer psychology and behaviour, embracing technology, scenario-modelling, the significance of the workforce in hospitality. In light of the above, this research comes handy in plugging this information gap and widening the existing research background. Equally important, it seeks to present different perspectives to rebound in hospitality.

2.13 Summary of the Chapter

Succinctly, this chapter has illuminated the research problem and delved into all angles of the research problem. It begins by highlighting the quantified impact of COVID-19 on the hospitality sector and further develops the recovery from the crisis, as encapsulated in the overarching concept of resilience. Emergent themes have been canvassed while models have been interrogated, with scenarios being simulated. Lastly, the chapter has ensured to propagate the discourse on change in the hospitality industry by projecting the industry's future in the event of disruptive technologies and consumer behaviours.

3 CHAPTER THREE METHODOLOGY

3.1 Introduction

This chapter covers the research design, research setting, research sample and data sources, data collection methods, data analysis and presentation, ethical considerations, and a summary of the chapter.

3.2 Research Design

This study is a qualitative research design in that it uses interview data, observation data, document data, and audiovisual data, which was critical in “identifying themes, drawing patterns, and interpretation of the text” (Creswell & Creswell, 2018, p. 53). Within this qualitative research, the type of study is the semi-structured interview data collection method. Further, data were analyzed using qualitative analysis methods, that is, content analysis.

The rationale for the interview research approach is the interpretivism research tradition. The idea that overarches this research paradigm is that knowledge can be gained from understanding the “subjective meanings and purposes” behind people’s actions (Johannesson & Perjons, 2014, p. 169). That said, the social world is constructed by people who act and give meanings to their actions. Such will explain the interview study research methodology. The researcher interacted with the respondents and the phenomena being studied in this research and thus understood and made meaning out of these actions. Simply stated, the researcher had to study a phenomenon from the views of the recruited research participants.

3.3 Research Setting/Context

This study utilized a research sample of hoteliers in North America. Most of them were employees in two significant global hotel chains: Marriot Hotels & Resorts and Accor S.A. This setting was preferred since the hospitality industry is multifaceted and involves several players ranging from small-medium enterprises (SMEs) to large hospitality chains. Given the research phenomenon, it was easy to gather data from this geographical setting. Also, such a selection ensured cultural distance that may arise in the diversity of participants is tone down.

3.4 Research Sample and Data Sources

This study recruited 25 research participants through purposive sampling. Purposive sampling was chosen because it enabled researchers to narrow down to participants who could supply in-depth and relevant information on the impact of the COVID-19 pandemic on the hospitality industry. These research participants were selected since they shared specific characteristics – key stakeholders in the hospitality industry. The sample size was determined by the stipulated criteria and the researcher's judgment – they had to be stakeholders in the hospitality industry.

The merits of the purposive sampling method are the effectiveness of resources of time and money. Again, the sources who could contribute to the study were a limited number of players in the hospitality industry. Most of these respondents were employees in hotels chains, particularly Marriot and Accor. Such a research sample was suitable for this research since they experienced the effect of the COVID-19 pandemic firsthand. As such, the information supplied by this group becomes insightful and adds credibility.

3.5 Data Collection Methods

Semi-structured interviews were used in data collection where the researcher interacted with the respondents by asking questions. Due to the restrictions on physical interactions emanating from the COVID-19 pandemic, the semi-structured interviews were emailed to selected respondents. The interviews were first pilot-tested to a group of 5 respondents to validate and revise the project, map out areas of concern, and reduce errors in the administration of final interviews.

Semi-structured interviews contained both predefined questions and also allowed the formulation of responses from the respondents. Interviews were preferred for this research given that they assist in gathering complex types of information, for instance, views of hoteliers on the future of the hospitality industry. Equally important, interviews aided the researcher with interacting with sources who had unique information. Such was the case with experienced hoteliers, managers, and stakeholders in the hospitality industry.

Semi-structured interviews thus ensured the collection of reliable qualitative data in that they are flexible. They allowed for clarification of certain issues at the same time, getting specific answers to questions.

3.6 Data Analysis and Presentation

Since this study used semi-structured interviews, qualitative data analysis was critical in explaining the phenomenon being investigated in this research – the impact of COVID-19 on the hospitality industry and the recovery from that crisis. Responses were analyzed using qualitative data analysis methods, especially content analysis. Sample texts were selected from the interviews, broken down into units, and categories developed for analysis.

These categories were then coded. QSR NVivo qualitative computer software was used in data analysis, and it was preferred to hand-coding, a laborious and time-intensive process. With this method, data was organized and sorted effectively. It was also easy to retrieve information from databases due to computer searchability features.

After the collection of data from the semi-structured interviews, data were prepared for analysis the coded. The codes used were the themes drawn from the research objectives. As such, a word represented a category – for example, a theme like resilience could describe disruptive technologies, the hospitality 5.0, and the post-pandemic state of the hospitality industry. Themes and descriptions were the most essential functions of the coding process. Together with their descriptions, themes helped analyze information and event, creating layers of information that could be analyzed on a higher level. Such was critical in drawing the sub-themes and showing the interrelationships between codes.

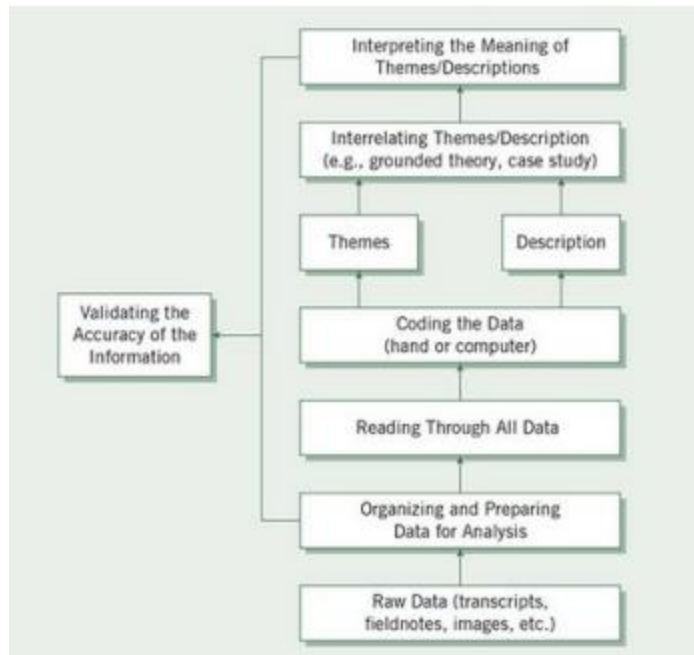


Figure 3.6.1: Coding data in qualitative analysis. (Source: Creswell & Creswell, 2018, p. 269).

Texts were assigned to specific codes that were distilled from the research objectives: state of the hospitality industry before the pandemic, tourism crisis, and disaster management modelling and simulations, and how technological disruptions will reinvent the tourism industry in the long term. Data was presented using visuals, figures, and tables that summarized the results of the interviews.

3.7 Issues of Trustworthiness

The ethical considerations arising from this research lay in collecting and handling data from people. The issues of privacy, confidentiality, and informed consent were paramount to this research. Selected participants filed information consent forms sanctioned by HEC Montreal's Institutional Review Board (see appendices). The informed consent form captures the permissions of the respondent to partake in the study. Also, it took into account the disclosure purpose of the study to establish trust. The researcher briefed the respondents on the study, and they were at liberty to sign up, answer some or all questions, and even leave the study any time. Privacy was realized through the anonymity of individuals by using aliases and pseudonyms to protect the participants' identities. Confidentiality was maintained by guarding against disclosing the identities of the research participants. Equally, their responses were only used in the research and not shared with another party, and the data was strictly used for the study only.

3.8 Limitations and Delimitations

On the part of the methodological limitations and delimitations relates to the validity and reliability of the findings. First, there was the problem of response biases from the respondents, and response biases from administering the interviews by email added to those inherent in self-reports: hunches, views, and respondents' opinions. Again, some of the research participants were not articulate and insightful in the open-ended responses.

The sample size was also inadequate and was challenging to recruit. The use of a purposive sample in the North American setting also poses a threat to external validity. The results might not necessarily be generalized to other contexts. The research participants shared a majority of characteristics, and thus outright qualitative validity of the findings was determined by the authority of the respondents. Recruiting respondents who are players in the hospitality industry ensured trustworthiness, credibility, and authenticity.

3.9 Summary

This chapter has elucidated the methodology applied in the execution of this research. It showed the fieldwork aspect of this research, which is the basis of research and investigating the phenomenon in a given setting. Toward this end, the chapter has discussed the introduction, research design, research setting, research sample and data sources, sample size, data collection, data analysis and presentation, ethical considerations, and provided a recap of the chapter altogether.

4 CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter reports the study's key findings and presents the quantitative (statistical) and qualitative (narrative) data as centered on the purpose of this study: "The impact of COVID-19 on the hospitality sector and formulating a recovery out of the crisis." Inferring from the research paradigm, naturalistic inquiry seeks to solve problems by gathering knowledge to explain and understand a phenomenon (Lincoln & Guba, 1985). Semi-structured interviews provided enriched and descriptive data. Furthermore, the collected data was analyzed through categorical content analysis using Qualitative Data Analysis Software (QDAS).

Content analysis was used to determine selected words, ideas, themes, categories, and concepts in the qualitative data gathered from the semi-structured interviews. Content analysis was done through codes and coding using QSR NVivo, a Qualitative Data Analysis Software (QDAS). With this method, qualitative data management was automatic and easy to sort and retrieve data. The results of this study are further synthesized and connected with the research questions, literature review, and conceptual framework in the study. Such an analysis is crucial in understanding themes and patterns that emerge in the hospitality industry, and it helps in reflecting on the study and understanding its theoretical and practical implications.

4.2 QSR NVivo Coding

NVivo is a data analysis product developed by QSR International, a tech company in Australia. It accommodates various content types and formats – audio, documents, images, spreadsheets, videos, webpages, and even social media metadata.

Table 4.2.1: Functions and Features of the NVivo Software (source: QSR international)

Sources	Canvass contains source materials like interviews, transcripts, audio recordings, survey responses, and multimedia files.
Nodes	A collection of references on specific themes, categories, concepts, topics, cases or relationships. They are organized into theme nodes and case nodes.
Classifications	A system storing descriptive information about sources, nodes, and relationships in the project: includes kinds, types, and classes.
Collections	Groupings of external project items in the project and are used to navigate these views outside the project.
Coding	Gathering all references to a particular topic, theme, person, or entity.
Memos	Sidenotes to record new ideas, insights as one is doing the coding. Useful in analysis and interpretation.
Framework Matrices	Summarizing source materials.
Annotations	Notes are scribbled on margins to record comments, reminders, observations, footnotes.

Table 4.2.2: A step-by-step process of NVivo qualitative analysis (source: QSR International)

QSR NVIVO	
1.	Transcription of the interviews to double-check and cross-check the responses and ensure accuracy.
2.	Sentence analysis through simple electronic coding. Sentences were interpreted, and meanings were assigned code names using free nodes.
3.	The tree node function was applied to hierarchical categories of simple codes. Then simple codes are further arranged to form categories, subcategories, semi-subcategories, and so forth. It grouped the codes into categories (abstract themes, themes, and sub-themes).
4.	More transcription to identify preliminary themes, search for emergent themes, and group the themes into hierarchies. Creating comparisons and distinctions among themes ensured clear-cut differences and shared similarities in themes.
5.	Data is grouped up to the most delicate details (saturation).

According to QSR International (n.d.), qualitative research and, in this particular case coding, tends to be a cyclical and continual process consisting of exploring, coding, reflecting, memoing, and repeating to the point of saturation.

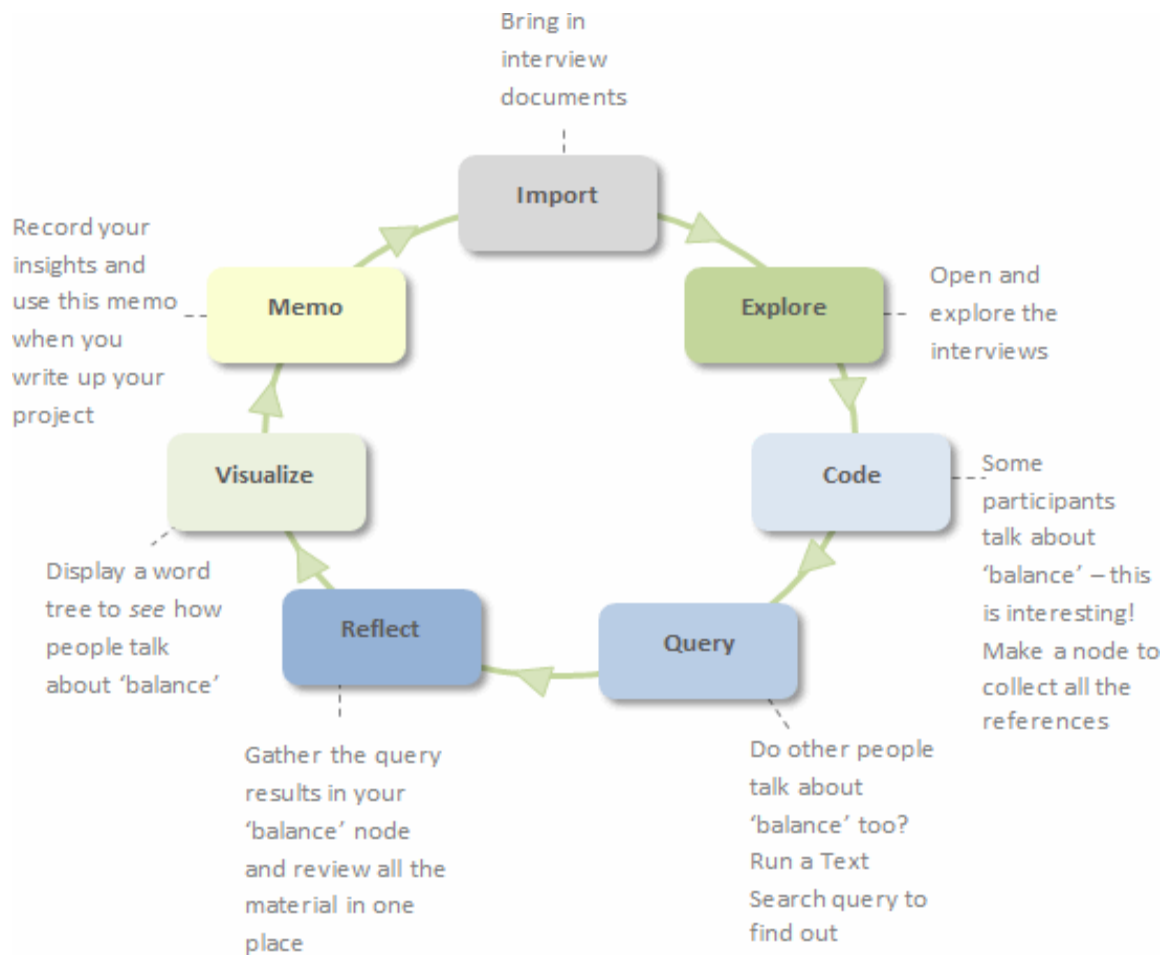


Figure 4.2.1: Qualitative research as an iterative process (Source: QSR International)

QSR NVivo is user-friendly given its simple features, especially in grouping codes under new categories or putting them under existing categories. Even more, these themes are updated instantaneously throughout the whole system. Free nodes can be viewed from their overarching categories, and interview sources of data can be tracked. The creation of first-level themes, second-level themes, in this order, helps to look out for the emerging themes. The memos feature also allows the user to create sidebars and take sidenotes that could be linked to the categories. Again, it acts as a database that allows for the storage and retrieval of updated information in real-time, thus convenient over traditional coding, which needs to be manually updated. Data in the system can also be visualized into a concept map, thus deconstructing the abstract, main themes, and emerging themes. Other features include drag-and-drop, word clouds, cluster analyses, word trees, interoperability (multiplicity).

On the part of limitations of QSR, NVivo coding is technical and calls for computer savviness. Lack thereof may threaten the accuracy of coding and the problem of mislabeling, mismatching, and cascading inaccuracies.

4.3 Coding scheme

The preliminary codes (predetermined codes) and emergent codes (novel codes) were identified and designated by different color schemes. Red was used in the former, and blue was used in the latter. Preliminary codes are the concepts and assumptions adopted from the existing theory and form part of this study's conceptual and hypothetical framework. Preliminary codes and themes were already part of the questionnaire and defined in this study's codebook. The preliminary codes in this study were resilience, susceptibility and fragility of tourism, tourism crisis and disaster management.

Emergent codes were induced from the coding process. They are fresh concepts, themes, categories, ideas, and words that came up in the process of coding. Emergent codes were given attention in this study since they introduce fresh ideas, concepts, and new perspectives to this research. Equally important, these ideas, concepts, and categories are systematically sieved and unveiled in the interview data. Further distinctions and grouping them together create finer subcategories and subthemes that can study the interrelationships and trends among the concepts (Given, 2008). In this case, the emergent codes were rethinking tourism, public health, economic measures, and geopolitics.

4.4 Themes

Given the coding and tabulation of the codes, the quantitative aspect of this data can be ascertained. The frequency of individual themes and subthemes can be quantified and captured in qualitative aspects. Coding, analysis, and transcription of the semi-structured interviews brought forth the themes of job and employee resilience, consumer psychology and behaviour, technology as the first-level themes. These were the most mentioned and were overarching on other themes. Job and employee resilience were identified by words such as tourism employees, risks of, producers of hospitality services, external factors, contingencies, at the center of disruption and innovation in the service industry, management, progressive organizational culture, job satisfaction, competency, skills, needs, and values, responsibilities, and adaptation at the workplace.

Consumer psychology and behaviour was drawn from keywords such as consumer perception, servicescape, hospitality environment, human behaviour, thoughts, feelings, attitude, behaviours, consumer confidence, pessimism, skepticism, and cynicism, safety in branding fear of travel, fake news, sensationalism, destination marketing organizations (DMOs). Technology was extrapolated from responses that implied safety and the consumer experience, Artificial Intelligence (AI), Human-Robot Interaction (HRI), robotics, hospitality 5.0, operational efficiency, and virtual tourism.

Table 4.4.1: Coding scheme

Code	Description	Frequency	% Frequency
Resilience	Adaptive capacity, normalcy, models, survival, adaptation, innovation, systems resilience, organizational resilience, community resilience, economic resilience.	3	4
Susceptibility of tourism	Fragility, multisectoral, SMEs, ripple effects, amplify, vulnerability, chaos, disaster, planning, preparedness, response, resolution, macrolevel, microlevel, reactive, proactive, complex adaptability systems (CAS).	5	6.67
Job and employee resilience	Employees in tourism, workforce risks, the hospitality-industry value chain, externalities, disruption and innovation in the service sector, management practice, organizational culture, job satisfaction, competency, skills, needs, value and responsibilities, adaptation at the workplace.	8	10.67
Technology	Disruptive technology, big tech, technological intervention of the consumer experience, artificial intelligence, human robotics interaction, hospitality 5.0, operational efficiency, tourism product design, IoT, revolutionization	12	16
Consumer behaviour and psychology	Consumer perception, servicescape, hospitality environment, human behaviour and psychology, thoughts, feelings, attitudes, behaviours, consumer confidence, pessimism, skepticism, cynicism, safety, branding, overcrowding, fear of travel, fake news, sensationalism, destination marketing organizations.	9	12

Tourism Crisis and Disaster Management	Scenario modelling, future of tourism, virtual tourism, medical tourism, ecotourism, long covid, evolve, resumption	4	5.3
Nature and Identity of the hospitality industry	corporate social responsibility, stakeholder orientation, environmental conservation, planetary protection, climate change, carbon neutral, carbon negative, clean energy, human activity, nature, natural disasters, epidemic, anthropogenic causes, pandemic, globalization, terrorism, natural hazards.	8	10.67
Rethinking tourism	Place and relevance of the workforce in the hospitality industry, tourism being about tourist turnover, ecotourism, medical tourism, virtual tourism, strands in tourism.	3	4
Public health		12	16
Economic measures	Inflation, stimulus packages, bailouts, furlough schemes, economic mitigation, global supply chain, SMEs, diversification of service, short-term, long-term	10	13.33
Geopolitics	relationship between government(s) and the hospitality industry, regional cooperation, coordinated response between governments	1	1.33
TOTAL		75	100

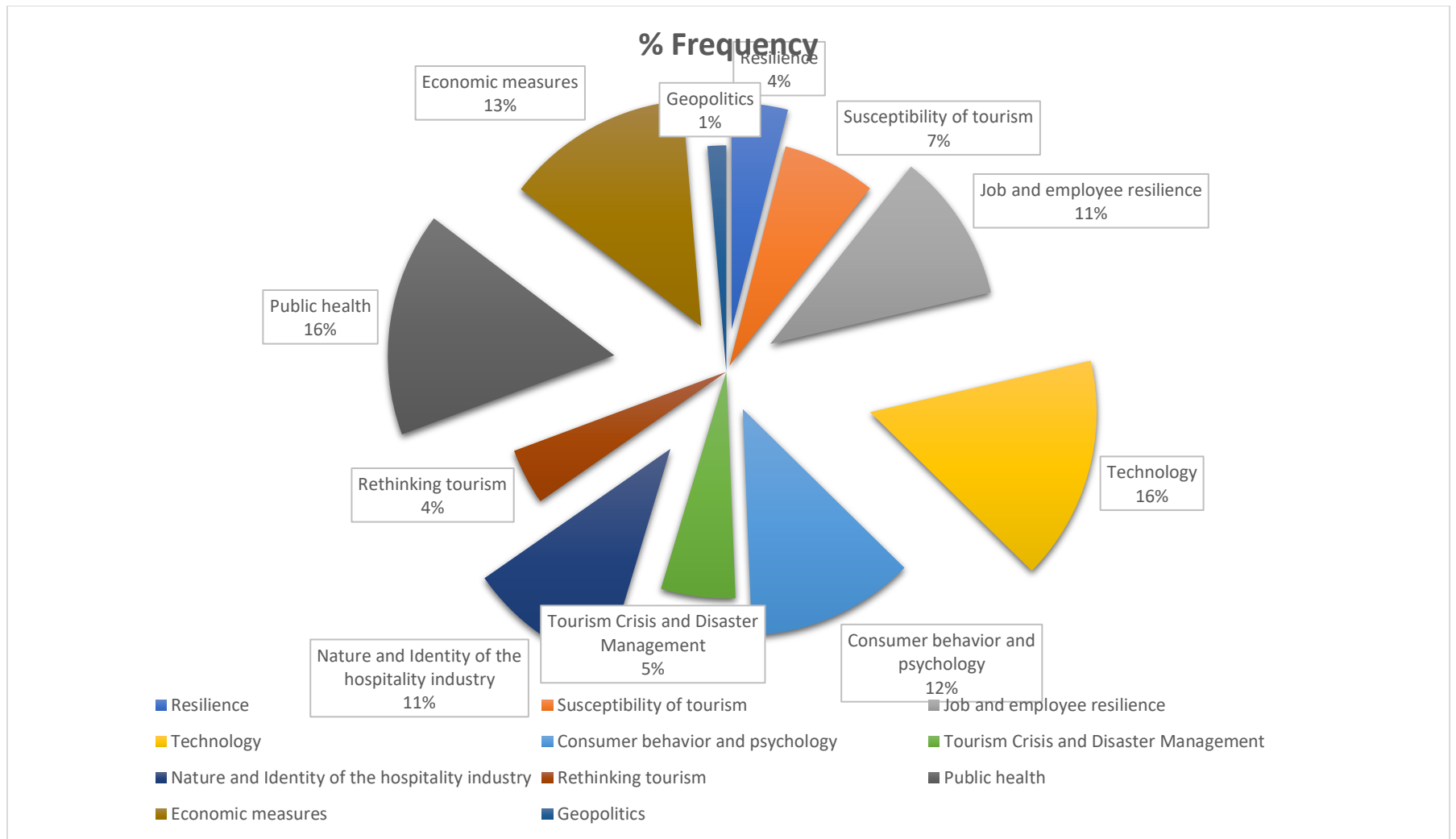


Figure 4.4.1: Figure 4.4.2: Frequency of the codes

4.5 Tourism Crisis and Disaster Management Modeling

This section uses tourism crisis and disaster management models to explain projects, model, and simulate various scenarios in the hospitality industry concerning France and Canada. Toward this end, it applies statistical forecasting tools (regression analysis) to understand scenarios in the hospitality industry. Data is presented in the form of visuals such as tables, illustrations, and figures to explain it. The interrelationship amongst variables and the whole hospitality industry can thus be ascertained. The scenarios that informed this modelling are economic scenarios (economic factors and mitigative measures); epistemological scenarios (public health protocols and clinical measures); disruptive technologies; a changing workforce; consumer behaviour and psychology; and other externalities.

4.5.1 Modeling Hospitality in Canada

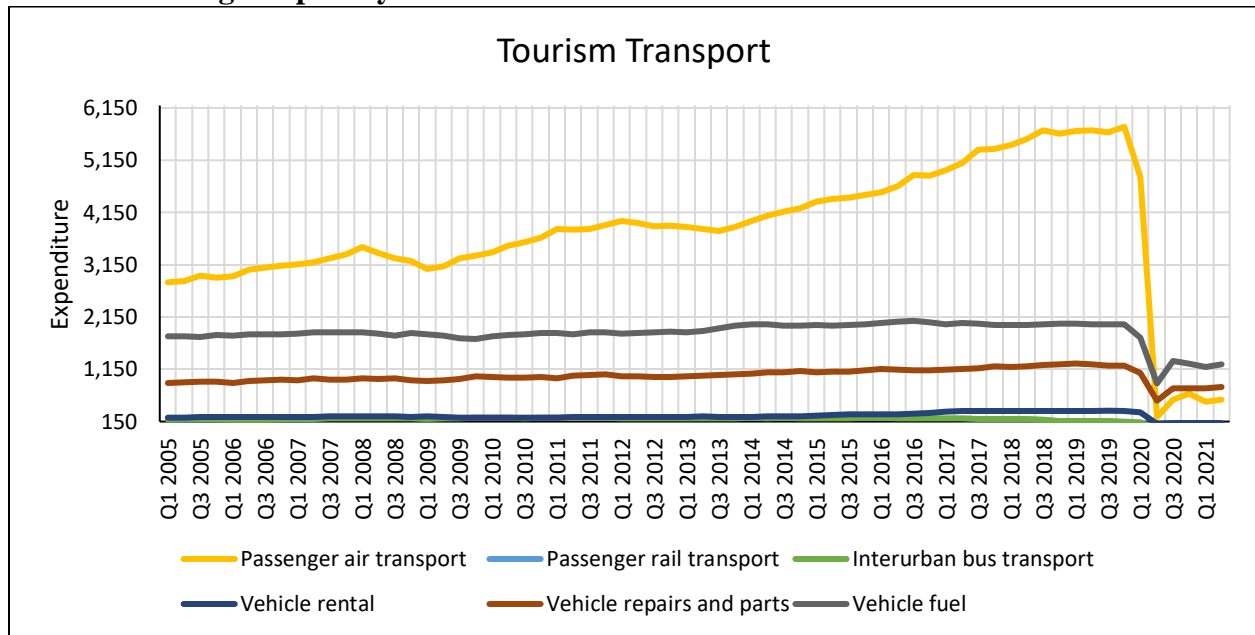


Figure 4.5.1: Tourism Transport in Canada before and during the pandemic

According to the analysis, passenger air transport was at its highest from 2005 to the 1st quarter of 2020. The pattern dipped in the 2nd and 3rd quarters of 2020, owing to the Covid-19 pandemic that stopped most of the tourism flights in and out of Canada. Fuel across the past years demonstrated stability between \$1,150 -- \$2,150 across the various tourism companies engaged. The vehicle fuels used in transportation also dropped suddenly in the 2nd quarter of 2020.

Nonetheless, this was followed by a slight rise in their volumes and consequential prices. The number of vehicle rentals across Canada for use in transportation of tourists dipped to a near-zero after the Covid-19 pandemic (Statistics Canada, 2021). The number of vehicle repairs and parts also registered a slight decline in numbers for the period leading to the pandemic. In this context, it was clear that the number of vehicle parts declined slightly at the onset of the pandemic, followed by a significant rise in the numbers witnessed.

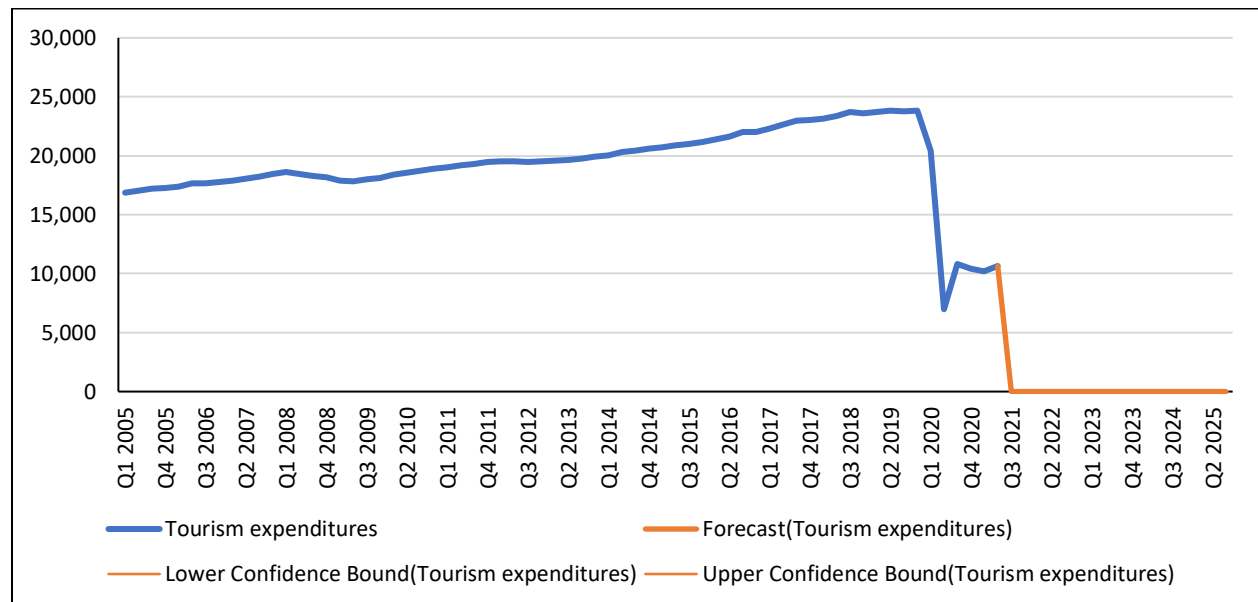


Figure 4.5.2: Prediction of tourism expenses across Canada before and after the pandemic

The tourism expenses were highest in the 2nd quarter of 2020 as witnessed from the figure. The pattern was influenced by the onset of the pandemic that led to a significant decline in the tourism expenses seen across tourism companies across Canada. The predictions reveal a further reduction in tourism expenses since most countries have not yet started complete tourism activities. Furthermore, this move is also influenced by most tourism companies in Canada minimizing their expenses to reduce losses during the pandemic period. The pattern presented by the expenditure implies a possible reduction in the number of tourists below the average numbers always recorded prior to the pandemic period. The nature of the data suggests the need for more governmental efforts towards improving the tourism landscape to improve tourism over time.

Table 4.5.1: Modelling Tourism demand in Canada

Linear regression

Tourism demand	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
Tourism expenditure	1.4	.089	15.68	0	1.221 1.579	***
Transportation Passenger air transport	-.42	.164	-2.55	.013	-.749 -.091	**
Inter-urban bus transport	.087	.111	0.78	.437	-.135 .308	
Travel agency services	1.916	.401	4.78	0	1.113 2.72	***
Recreation and entertainment	.17	.163	1.04	.303	-.157 .496	
Other tourism commodities	-.56	.112	-5.00	0	-.785 -.336	***
Food and beverages	.203	.175	1.16	.251	-.147 .553	
o.travel agency services	-.3	.153	-1.96	.055	-.607 .006	*
Inflation	0	
Constant	-.647	.762	-0.85	.4	-2.174 .88	
	-297.582	139.122	-2.14	.037	-576.278 -18.886	**
Mean dependent var	19198.455	SD dependent var	3392.371			
R-squared	0.756	Number of obs	66.000			
F-test	73393.842	Prob > F	0.000			
Akaike crit. (AIC)	660.571	Bayesian crit. (BIC)	682.468			

*** $p < .01$, ** $p < .05$, * $p < .1$

According to the model, $R\text{-squared}=0.756$ indicates that 75.6% of the regression of the tourism demand on the other model variables explained by the developed model. This presented a higher level of predictability between the predictor and the response variables as presented from the provided data. The model also proved statistically adequate for predicting the tourism demand across Canada for the respective periods ($F=73393.842$, $p<0.01$). In this context, it was noted that the model was reliable for predicting the tourism demand within Canada during the Covid-19 pandemic.

The cost of transportation ($\beta=-0.42$), recreation and entertainment facilities ($\beta=-0.56$), food and beverages ($\beta=-0.300$), and inflation ($\beta=-0.647$) will slow down the tourism demand in Canada. Accordingly, any rise in these variables forecasts even a lower on tourists in future. Furthermore, the cost of interconnected sectors like transportation, recreation, entertainment, and food and beverages significantly affected the demand for tourism across the country ($p<0.05$). Importantly, this reaffirms the plausibility of these parameters in predicting the pattern of tourism demand for the specified periods as presented from the respective findings.

The model implied that the number of tourists visiting various tourism destinations in Canada was negative ($\beta=-297.582$). It demonstrates that there was little tourism demand witnessed across existing tourism destinations due to the pandemic. The parameter proved statistically significant at a 5% level of significance ($t=-18.886$, $p<0.05$). According to the developed model, tourism expenditure ($\beta=1.4$), passenger air transport ($\beta=0.087$), inter-urban bus transport ($\beta=1.916$), and travel agency services ($\beta=0.17$) presented a positive effect on the tourism demand within the country. Only the tourism expenditure and inter-bus urban transport proved statistically significant at a 5% level of significance in predicting the tourism demand across Canada. From the foregoing, a rise in these variables after the Covid-19 pandemic presents a positive effect on the tourism demand in the country.

4.5.2 Modeling Hospitality in France

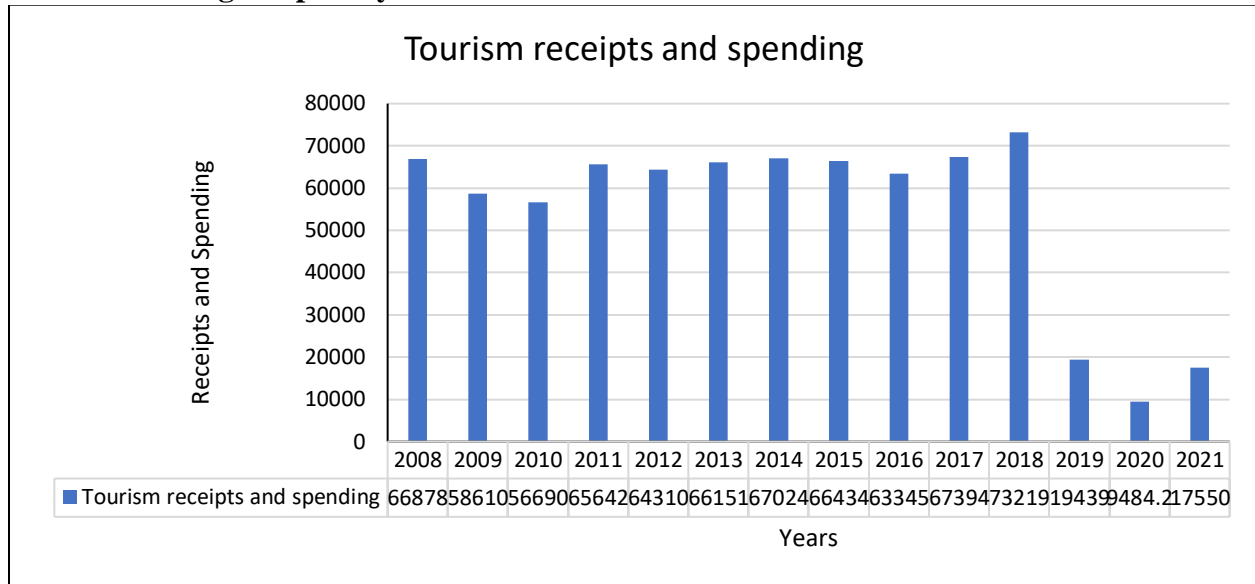


Figure 4.5.3: Tourism receipts and spending in France

According to the data, France has witnessed a variation in tourism receipts and spending from 2008 to 2021. 2008 was among the years with the highest receipts and spending on tourism. The figures dropped in 2009 and 2010, respectively. The receipts and spending were increasing in 2011, 2012, 2013, 2014, and 2015. The figures fell once more in 2016, declining further in 2017. Amid these declines, tourism spending was still stable since the changes were marginal. The receipts and spending increased in 2018. In the wake of the Covid-19 pandemic, there was a significant decline in tourism receipts and spending. The figures sank from 2018 to 2019. In 2020, there were the lowest tourism receipts ever witnessed in France for the past years. This was illustrated by a series of lockdowns and curfews in France that led to minimal to no tourism and hospitality activities being held with the fears of increased infections. Covid-19 vaccination has led to increased instances of tourism and hospital activities around France. This explains an improvement in the tourism receipts and spending in 2021, as presented in figure 1.

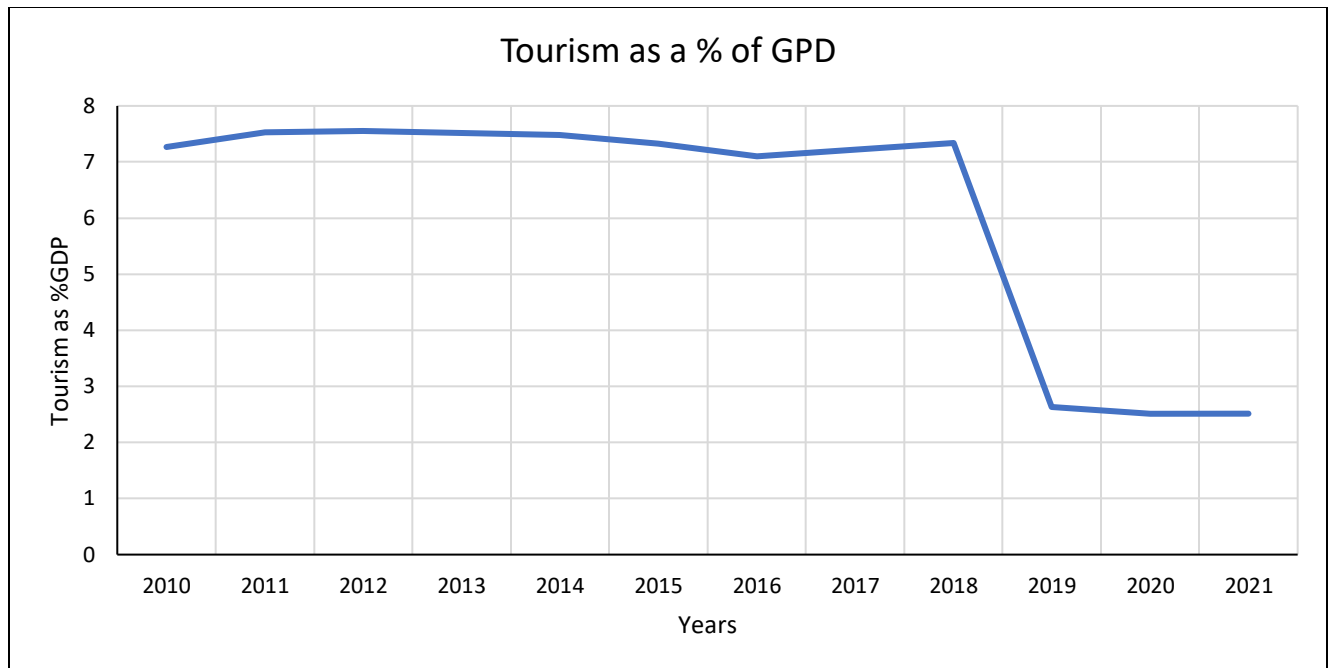


Figure 4.5.4: Tourism as a percentage of GDP in France

According to the findings, it can be noted that tourism and hospitality was a significant contributor of the national GDP from 2010 to 2019. The pattern revealed a slight decline in performance from 2015 to 2016 years. The change was followed by a consequent increase in 2018, despite a slight reduction in tourism earnings proportion to the GDP. The respective tourism and hospitality companies registered a significant decline in their earnings and contributions to GDP, as witnessed from the figure. 2020 and 2021 financial years were characterized by a continuous decline in their respective values over time. France's tourism and hospitality sector is optimistic of continuous growth due to the widespread vaccination drive campaigns across the country. These motives are geared towards restoring the industry's performance to improve their levels of competitiveness into the future.



Figure 3: Tourism industries in France before and after Covid-19

According to the figure, tourism industries have varied over the past years. The number of industries rose from 2009 to the highest values witnessed in 2014. This was followed by a decline in the number of tourism industries over time. The changes showed that 2020 and 2021 had one of the least values witnessed from the data provided.



Figure 4.5.5: Accommodation services for visitors before and after Covid-19

Accommodation services for the visitors were the least in 2010, followed by a substantial increase over the successive periods. The changes depicted a continuous rise in accommodation services up to 2018 and 2019 years. 2020 and 2021 have witnessed lower accommodation services owing to increased cases of Covid-19 infections and declined tourism activities in France for the past years.

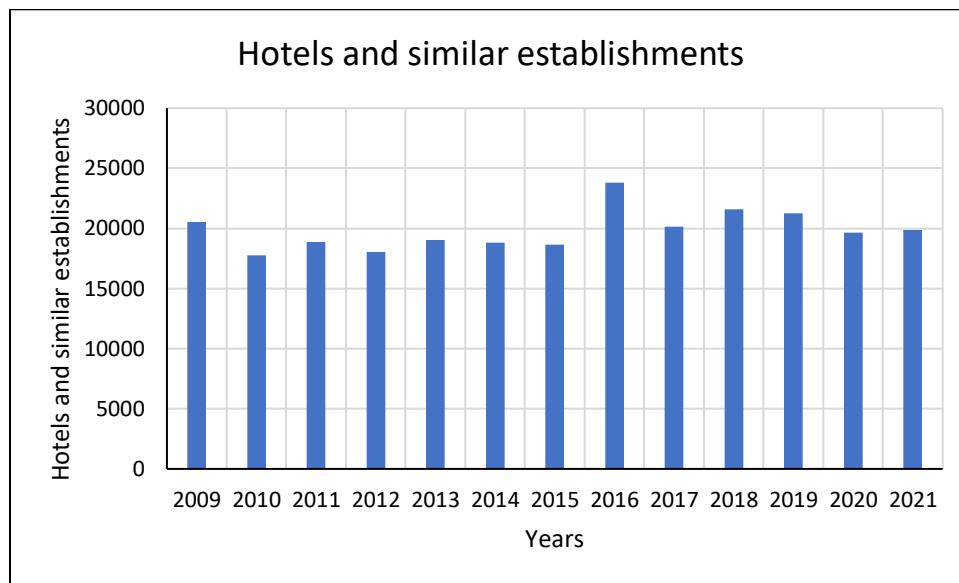


Figure 4.5.6: Hotels and similar establishments before and after Covid-19

Hotels and similar establishments presented a steady change in numbers from the information provided. The year 2009 delivered one of the highest hotel establishments in France, and the numbers declined slightly, with 2016 showing the highest number of hotels and other similar establishments from the information. Moreover, 2020 and 2021 presented the least number of establishments ever witnessed across the area based on the data provided.

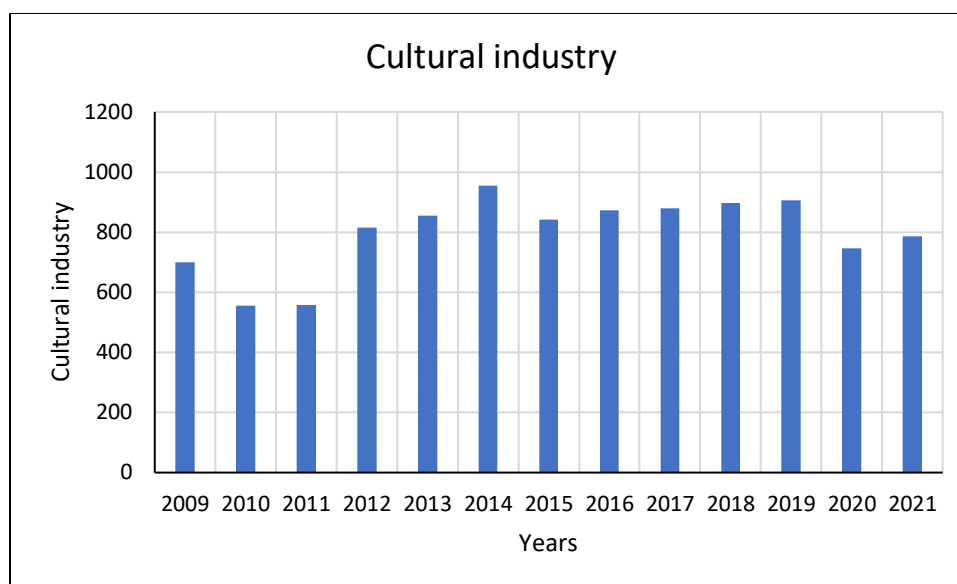


Figure 4.5.7: Cultural industries in France before and after Covid-19

Table 4.5.2: Correlation analysis

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) tourism as a % of GDP	1.000					
(2) cultural industries	-0.262	1.000				
(3) hotels and similar establishments	-0.368	0.410	1.000			
(4) accommodation services for visitors	-0.431	0.852	0.575	1.000		
(5) tourism industries	0.402	0.582	0.166	0.502	1.000	
(6) tourism receipt and spending	0.338	0.353	0.185	0.150	0.612	1.000

According to the model, there was a negative relationship between cultural industries, hotels, and similar establishments and accommodation services for visitors and tourism as a percentage of GDP in France. Tourism industries had a weak relationship with the cultural sector ($r=0.852$).

Table 4.5.3: Regression analysis

Linear regression

tourism as a % of GDP	Coef.	St.Err.	t- value	p- value	[95% Conf	Interval]	Sig
cultural industries	-.001	.008	-0.15	.886	-.021	.019	
hotels and similar establishments	0	0	-0.07	.947	-.001	.001	
accommodation services for visitors	0	0	-1.42	.207	-.001	0	
tourism industries	0	0	2.49	.047	0	0	**
tourism receipt and spending	0	0	-0.15	.887	0	0	
Constant	.513	7.714	0.07	.949	-18.361	19.387	
Mean dependent var		6.166	SD dependent var		2.182		
R-squared		0.701	Number of obs		12.000		
F-test		2.811	Prob > F		0.120		
Akaike crit. (AIC)		49.255	Bayesian crit. (BIC)		52.164		

*** $p < .01$, ** $p < .05$, * $p < .1$

The model presented an R-squared value of 0.701, showing that the model explained 70.1% of the regression of the percentage of tourism on GDP. This presented quite a higher predictive power. On the model, tourism receipt and spending, tourism industries, accommodation services for visitors, and hotels and similar establishments did not affect the percentage of tourism on GDP was explained by the model ($\beta=0.000$). The number of cultural industries presented a negative effect on the percentage of tourism on GDP was explained by the model ($\beta=-0.001$).

4.6 Summary

This chapter has discussed the study findings along the dimensions of quantitative data and qualitative data. Content analysis through QSR NVivo coding has explored the qualitative data, especially themes in the hospitality industry. Quantitative data was analyzed through statistical forecasting, and it modelled the future of tourism demand. Data was visualized through figures and tables.

5 CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter does a recapitulation of the entire project, draws the relevant concluding statements, and accordingly presents some recommendations based on the findings of this research. The three research objectives guided the study: to examine the state of the hospitality industry during and before the COVID-19 pandemic; to apply tourism crisis and disaster management models in understanding the multiple scenarios in the hospitality industry, and explore how the present disruptions could reimagine the overall outlook of the hospitality industry in the long term.

The study was discussed in five chapters. Chapter one introduces the research question that founded this thesis, “The Impact of COVID-19 pandemic on the hospitality industry and how to recover from such a global pandemic.” Such was informed on an actual research phenomenon – the COVID-19 pandemic and the hospitality industry. It identified the problem and sought to introduce a solution based on scientific research and empiricism. The context of this research was the state of hospitality in France and Canada, two member countries of the OECD. It looks into the course of COVID-19 from its onset as an epidemic to an all-out global pandemic, and importantly, what it meant to the world's economic activities was discussed. The problem statement showed that the COVID-19 pandemic is a worthwhile research phenomenon, given its impact on the hospitality industry. It set forth one downside of the hospitality industry as being reactive to the crisis. Again, the purpose of the study was captured in the statement of purpose, further reinforced in the aims and objectives of the study and research questions. The significance of the study, the scope, and the limitations was also identified and stated. It concluded with the definition of key terminologies.

Chapter two puts the research in the context of any previous scholarship by citing, critiquing, comparing, contrasting, and connecting this study to this academic, scientific, and theoretical background. It quantified the extent of the damage of the COVID-19 pandemic in the two country cases. Equally important, It covered the broader concept of tourism disaster and crisis resilience building. Themes and concepts like the fragility of the tourism sector to the crisis, employee resilience, consumer behaviour, and technology were interrogated and synthesized further.

Lastly, it tapped into the conceptual framework and scenario modelling to explain and simulate varied scenarios in hospitality, predict the future of hospitality by looking at the changing landscape and demonstrated how it sought to plug into the gaps in the previous scholarship.

Chapter three, Methodology, laid the groundwork for the execution of the study. It covered the methodological tradition, research design, rationale for the research approach, described the research setting and sample, data collection, data analysis and presentation, ethical considerations. It covered the procedures of the research design and implementation of this study. It provided the approach to realizing the study's purpose, dissecting the research problem and solving the research questions.

Chapter four (data analysis and presentation of research findings) organized and reported the main findings in the study. Importantly, it presented both quantitative (statistical) and qualitative (narrative) data that informed the execution of the research. Results of this study are also synthesized and discussed in line with the study's research questions, literature review, and conceptual framework. Accordingly, themes and patterns emerged from this analysis. Such was the case of the use of tourism crisis and disaster modelling in projecting the outlook of the hospitality industry in the near future. This chapter sought to reflect on the study findings, test their empiricism, and connect them to scientific theories and practice.

Chapter five, summary, conclusions, and recommendations recapitulated the research and drew necessary conclusions based on the findings. Through recommendations, it proposes how these conclusions can be applied. It reflects on the researcher's contribution to the knowledge body and the implications for further research.

5.2 Summary of Findings

5.2.1 The state of the hospitality industry in France and Canada

In both France and Canada, tourism is crucial in the nations' GDP and employment. In Canada, it contributes to 2.1% of the country's gross domestic product and 3.9% of its employment (over 750000 direct employment). In the pre-pandemic era, the hospitality industry was worth \$80 billion annually, and during the pandemic, the market value of the hospitality industry dropped to \$ 43 billion.

In France, the value of the hospitality industry was \$ 245 billion, and it was number five in the world tourism markets. Its contribution to France's GDP was 7.5% that is about \$100 billion. However, with the pandemic, the value of the tourism industry hit \$ 125 billion. Then, jobs were over 2.8 million, both direct and indirect employment. All the hospitality indicators of occupancy rate, revenue per available room (RevPAR), and average daily rate (ADR) experienced drops. In Canada, the occupancy rate dropped by 55%, the average daily rate (ADR) by 27%, and the Revenue per Available Room (RevPAR) was 68%. In France, the occupancy rate dropped by 59.5%, the average daily rate (ADR) by 18%, and the Revenue per Available Room (RevPAR) by 96.5%. Such quantifies the extent of the damage occasioned by the COVID-19 pandemic. Imperatively, it justified this subject as a research phenomenon and gave rise to the research problem.

5.2.2 Tourism Crisis and disaster management modelling

Drawing from theories and concepts in tourism crisis and disaster management, modelling was used to imagine the state of the hospitality industry. Scenario modelling considered multiple and interconnected relationships within variables under different scenarios. Variables under economic and epidemiological scenarios such as inflation, tourism demand, purchasing power, vaccination rates, variants of concern, and public health protocols mediate the bounce back. Multiple regression analysis was used to predict tourism demand and the state of the hospitality industry in Canada and France. The prediction showed recovery by the first quarter of 2024, on the condition that other factors are held constant. Another mediative factor is consumer behaviour and psychology concerning purchasing hospitality services. Such factors are the most significant determinants of the cause of recovery.

5.2.3 The future of hospitality

The COVID-19 induced some permanent, irreversible changes in the hospitality industry. What is more, the industry will continue to transform like operations and general corporate identity. Developments like medical tourism, ecotourism, and even externalities like climate change, environmental conservation will continually redefine the hospitality industry. Beneath all these changes, technology remains the ultimate and inevitable gamechanger in the hospitality industry and thus must consistently chart the course of the sector.

5.3 Conclusions

Noteworthy, tourism remains fragile and susceptible to crisis given its multisectoral nature makes it depend on other allied industries like transport, food, beverage, entertainment, and numerous environments and contexts. That said, the ripple effects emanating from the complex interrelationships present a threat to the industry. Despite this limitation of the sector, it remains very profitable and a mover of the global economy.

All sectors of the economy are always independent. Hospitality falls under the tertiary sector of the economy since it supports all production processes, and by extension, the primary and secondary sectors of the economy. It is not entirely possible to separate this interrelationship between tourism and the other sectors. Granted, tourism is bound to be fragile and often reactive to the crisis. However, there is a capacity to ensure that it is more proactive and resilient to crisis – improving the efficiency of the tourism crisis and disaster management models. Such is the place of building resilient systems and disaster mitigation in the hospitality industry.

With the Covid-19 pandemic, safety should be the watchword in branding hospitality services. This is because the consumer perception of safety in the services sector has become tarnished. Given this, reinforcing safety in the hospitality industry must be the goal of marketing and branding. Such will impact consumer behaviour and psychology in the tourism market. Emphasis on safety will transform-- consumer attitudes towards optimism and confidence, thus precipitating consumer spending on tourism services and further spurring tourism service demand. Working around to fact-check and debunk the myths around the Covid-19 would also help restore the lost consumer confidence.

Technology should also be explored as a tool for resilience in the hospitality industry. The place of big tech in the hospitality industry will upscale consumer experience and efficiency in service delivery. Equally important, the Covid-19 pandemic accentuated the essence of big tech in the hospitality industry. Disruptive technologies like Artificial Intelligence, automation, and robotics could take over the sector in their quest to improve efficiency and redesign the customer experience. Generally, robots, artificial intelligence, and service automation (RAISA) have transformed the workforce, consumers, and the big industry. Given the COVID-19 pandemic, the benefits of adoption of technology in hospitality remain greater and profitable for the industry. They will improve the competitive edge in firms, quality of service, and efficiency

of customer service processes. Such will be the convergence of the Fourth Industrial Revolution and hospitality, giving rise to the imagined hospitality 5.0. Canada and France's travel, hospitality, and leisure (THL) industries have evolved with such dispensations. France being one of the top tourism destinations of the world could have a higher potential from leveraging on this technology. Again, the country has encouraged innovation, research, and development in technology through start-up companies. As such, the technology products could be harnessed by the hospitality industry and used to transform customer service and efficiency of processes.

Likewise, hospitality is being remodeled by externalities such as climate change, technology, employee behaviour, and trends in the consumption of hospitality services. In part, such could explain the rise of strands of tourism like medical tourism, domestic tourism, and ecotourism. Similarly, it changes the corporate identity of the hospitality industry so that it is not entirely oriented toward profit – for example, benefit corporations in the service sector.

5.4 Recommendations

Theoretically, it is significant that future research must draw out the concept of systems theory, especially on the construct of the edge of chaos that precursor innovation. Again, this research reckoned with the fact that Covid-19 is a fluid research area. As such, any new developments in science could change the epidemiology of the disease and thus shape this research. That said, this research is not conclusive instead taken as an insight that builds on this discourse of Covid-19 and significantly adds to the existing research.

As regards the methodology and data analysis, shortcomings in the semi-structured interviews and content analysis emerged. First, although they provided enriched and descriptive data, semi-structured interviews in data collection were subject to response biases. Such further reduced the rigor in external validity and generalization of the results to other contexts. A challenge taken from content data analysis is that the coding scheme does not create clear-cut hierarchical distinctions in the umbrella categories and sub-categories. Such depended on the researcher's judgment. In light of this, future studies should adopt a quantitative approach to the research design.

5.5 Summary

This chapter has provided a recap of the entire project, drawn the relevant concluding statements, and accordingly presented some recommendations based on the findings of this research. Considering the research objectives and research findings, this chapter has reflected on the contribution of this research to the knowledge body and practice in hospitality and, to some extent, other disciplines.

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APPENDIX I

Recruiting Tool

Dear Participant,

My name is Hamza Slaoui I am a Master's student in the International Business department at HEC Montreal. I am currently working on a project for my final thesis in International Business. One of the mandatory assignments is to interview an expert in my field of research, Hospitality Management. This interview should not take more than 30 minutes of your time, and the answers you provide will remain confidential and will never be publicly circulated. If you allow, the interview will be recorded for transcription purposes and destroyed after the evaluation of my final assignment in my Research Methods Course. The ethics approval for human subject research has already been granted by the Research Ethics Board of HEC Montreal. An informed consent form and a summary description of my research project are provided in attachment.

We could schedule a *time/place* that is convenient for you. I thank you in advance for your collaboration.

Sincerely yours,

Hamza Slaoui

APPENDIX II CONSENT FORM

1. Information on the research project

You have been invited to participate in the following research project:

The impact of Covid-19 on the hospitality industry and how to recover from such global pandemic?

- This project is being conducted by:

Hamza Slaoui
Master's Student
Hamza.slaoui@hec.ca
514 – 557– 3010

- This project is being supervised by:

Patrick Cohendet
Professor, International Business
patrick.cohendet@hec.ca
514 – 340– 6909

Summary:

This study purposes to evaluate the impact of the Covid-19 pandemic on the hospitality industry and equally propose a recovery plan to survive the crisis. First, it has identified the biggest crisis in today's hospitality sector, then seeks to quantify by measuring the extent of the damage brought forth. The second dimension, it works to propose sustainable mitigatory measures, that will materialize in the rebound of the sector.

2. Research ethics considerations

Your participation in this research project is strictly voluntary. You have the right to refuse to answer any of the questions. In addition, you may ask to end the interview at any time, in which case the researcher would be prohibited from using the information gathered.

HEC Montréal's Research Ethics Board has determined that the data collection related to this project meets the ethics standards for research involving humans. If you have any questions related to ethics, please contact the REB secretariat at (514) 340-6051 or by email at cer@hec.ca. Do not hesitate to ask the researcher any questions you might have.

3. Confidentiality of personal information gathered

You should feel free to answer the questions frankly. The researcher, as well as all other members of the research team, if applicable, undertake to protect the personal information obtained by ensuring the protection and security of the data gathered from participants, by keeping all

recordings in a secure location, by discussing the confidential information obtained from participants only with the members of the research team and by refraining from using in any manner data or information that a participant has explicitly requested be excluded from the research.

Furthermore, the researchers undertake not to use the data gathered during this project for any purpose other than that intended, unless approved by HEC Montréal's Research Ethics Board. **Please note that by consenting to participate in this research project, you also consent that the data gathered may be used for future research projects, subject to approval of any such projects by HEC Montréal's Research Ethics Board.**

All persons who may have access to the content of your interview, as well as the person in charge of transcribing the interview, have signed a confidentiality agreement.

4. Protection of personal information in the publication of research results

The information that you provide will be used to produce a document that will be made public. Although the raw information will remain confidential, the researcher will use this information in the work submitted for publication. It is up to you to indicate the level of protection of your personal information that you would like with regard to the publication of the research results.

- **Level of confidentiality**

- ☐ **I agree to participate in this research project.**

Option 1:

- ☐ **I give my consent for my name to be disclosed in the dissemination of the research results.**

If you check this box, the researchers can quote you from your interview and mention your name in any documents or research articles produced following this study. You should not expect your anonymity to be protected in this case.

Option 2:

- ☐ **I do not want my name to appear in the dissemination of the research results.**

If you check this box, no information concerning your name will be disclosed in the dissemination of the research results. Consequently, your anonymity will be protected.

- **Consent for audio recording of the interview:**

- ☐ **I give my consent for the researcher to make an audio recording of this interview.**

- ☐ **I do not give my consent for the researcher to make an audio recording of this interview.**

You can signify your consent either with your signature, by email or verbally at the beginning of the interview.

PARTICIPANT'S SIGNATURE:

First and last name:

Signature: _____ Date (dd/mm/yyyy):

RESEARCHER'S SIGNATURE:

First and last name:

Signature: _____ Date (dd/mm/yyyy): _____

APPENDIX III

Interview Guide

Esteemed respondent,

My name is Hamza a master's student majoring in International Business at HEC Montreal. To that effect, I am gathering data for my research topic, “The impact of Covid-19 on the hospitality industry, and how to recover from this pandemic.” I seek to explore the state of the hospitality industry in light of the Covid-19 pandemic. Granted, I hereby seek your consent to carry on with the interview, with full regard to the ethics of interviewing. That information you provide is unidentifiable to the source and will only be used for academic purposes.

I value your feedback, and more, your responses will go a long way in understanding this problem.

Regards,

H.S

Background Information

Sex:

Age:

Nationality:

Employer:

Job role:

Location:

Assessing the Impact of Covid-19 on the hospitality

What was the pre-pandemic and post-pandemic state of the hospitality industry?

- Think along the lines of tourism expenditure, international, and domestic tourism receipts.
- Focus on direct and indirect jobs in hospitality and the sectors involved in tourism.
- Discuss hotel performance indicators.

Emerging themes in hospitality

What has been the impact of the Covid-19 pandemic on the employees in hospitality?

- How the COVID-19 pandemic caused job disruptions (layoffs, downsizing, and closures)
- The place of the workforce (job security, automation, and employment protection)
- Safety and conduciveness of today's workstation -- service innovation, job satisfaction, today's workplace.
- Is there fairness in labor practices (think compensation, hardship allowances, severance pay, and employment benefits).
- Job and employee resilience – employees as most essential players in tourism resilience.

How has consumer psychology and behaviour changed after the Covid-19 pandemic?

- New trends in consumer behaviour brought forth by the pandemic -- consumer confidence, skepticism, cynicism, consumer attitudes and behaviours.
- Counts of new habits by consumers (think consumer skepticism, “revenge tourism,” and fear of travel).
- Adjusting branding, marketing, and service delivery to these new trends. Think destination marketing organizations (DMOs), emphasis on safety and practical communication.
- Impact of Covid-19 on microeconomics (think along the lines of pricing, product offerings, and willingness to spend).

Disruptive technologies

- Artificial intelligence, Internet of Things, smart devices, contactless customer services, robotics.
- The ideal hospitality 5.0

The future of hospitality

To what extent will the effects of the COVID-19 pandemic last?

- Long covid, sustainability of some economic mitigation measures.

Do you reckon with a changing identity of the hospitality industry?

- Think along the lines of corporate stakeholder-orientation, social responsibilities, ensuring the planet’s sustainability, and environmental protection.

Trends in consumption of tourism services.

- The place of domestic tourism, ecotourism, virtual tourism, and dark tourism as some of the topical issues in tourism.
- Tourism turnover as the yardstick of tourism success.

Anthropogenic climate change.

- How the tourism industry is supporting planetary protection
- Biological activities as extreme weather, hurricanes, tsunamis, pandemic, catastrophic natural disasters.



Comité d'éthique de la recherche

July 12, 2021

To the attention of:
Hamza Slaoui

Re: Ethics approval of your research project

Project No.: 2022-4606

Title of research project: The impact of Covid-19 on the hospitality industry and how to recover from such global pandemic?

Your research project has been evaluated in accordance with ethical conduct for research involving human subjects by the Research Ethics Board (REB) of HEC Montréal.

A Certificate of Ethics Approval attesting that your research complies with HEC Montréal's *Policy on Ethical Conduct for Research Involving Humans* has been issued, effective 12 July 2021. This certificate is valid until July 1st, 2022.

In the current context of the COVID-19 pandemic, you must ensure that you comply with the directives issued by the Government of Quebec, the Government of Canada and those of HEC Montréal in effect during the state of health emergency.

Please note that you are nonetheless required to renew your ethics approval before your certificate expires using Form *F7 – Annual Renewal*. You will receive an automatic reminder by email a few weeks before your certificate expires.

If any changes are made to your project before the certificate expires, you must complete *F8 – Project Modification* and obtain REB approval before implementing those changes. If your project is completed before the certificate expires, you must complete Form *F9 – Termination of Project* or *F9a – Termination of Student Project*, as applicable.

Under the *Policy on Ethical Conduct for Research Involving Humans*, researchers are responsible for ensuring that their research projects maintain ethics approval for the entire duration of the research work, and for informing the REB of its completion. In addition, any significant changes to the project must be submitted to the REB for approval before they are implemented.

You may now begin the data collection for which you obtained this certificate.

We wish you every success in your research work.

REB of HEC Montréal



Comité d'éthique de la recherche

CERTIFICAT D'APPROBATION ÉTHIQUE

La présente atteste que le projet de recherche décrit ci-dessous a fait l'objet d'une évaluation en matière d'éthique de la recherche avec des êtres humains et qu'il satisfait aux exigences de notre politique en cette matière.

Projet # : 2022-4606

Titre du projet de recherche : The impact of Covid-19 on the hospitality industry and how to recover from such global pandemic?

Chercheur principal :
Hamza Slaoui,

Directeur/codirecteurs :
Patrick Cohendet
Professeur - HEC Montréal

Date d'approbation du projet : 12 July 2021

Date d'entrée en vigueur du certificat : 12 July 2021

Date d'échéance du certificat : July 1st, 2022

Maurice Lemelin
Président
CER de HEC Montréal