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Educational and Scientific Institute of Management and Adult
Education
Department of Management Technologies

Sowemimo Kazeem Olanrewaju

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_____ (S. K. Olanrewaju)

Scientific Supervisor (consultant)

Bielova Olena Ihorivna
PhD (in Economics), associate professor

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INTRODUCTION

The coronavirus crisis took the tourism industry by surprise. An industry that had been greatly contributing to the economy of most nations was left crippled and devastated many local industries as well.

Relevance of topic.

China has a very major tourism industry that depends on recreation and business which was greatly affected by the pandemic. Since the coronavirus spread from Wuhan, China, many tourists perceived China as a high-risk country for any touristic activities. Many nations also imposed travel bans on China to control the situation, however, the disease had spread too far and wide by then.

The pandemic caused panic across all sectors of tourism including hotels, transport, retail, and restaurants. This has affected the livelihood of many communities across the globe that were dependent on domestic and foreign tourism. Various measures have been taken by different countries to ensure the sustenance and recovery of their tourism sectors considering the pandemic. The current study used the theoretical framework based on Mitroff's five stages of crisis management to evaluate the recovery tactics for the tourism industry. This model can be implemented in most cases of natural disaster, as explained in the study.

The purpose of the work.

The current study analyses the importance of the tourism industry for any nation, other industries that are directly linked to the tourism industry, the impact of the pandemic on the tourism industry overall and steps taken for the recovery of the tourism industry across the globe. The further study how major museums in China defied all odds to recover faster than most

subsections of the tourism industry.

The objective of the work.

It is a critical analysis of the technological means have museums taken towards sustenance and recovery of operations considering coronavirus, health measures have been taken by the museums considering coronavirus to maintain operations, the differences in approach by museums to recovery considering coronavirus, and the lessons can museums learn from the coronavirus crisis for future crisis prevention?

- (1) The measures that museums have taken to ensure sustainability and recovery from the impact of coronavirus.
- (2) The lessons learned from the coronavirus crisis for assessment of crisis management and readiness for museums in the future.

The subject and object of the study.

It is the tourism industry of China based on example of The National Museum and the Palace Museum, and to assess the technological and health measures taken to help recovery from the pandemic.

Overview of the problem.

With its variety of landscapes and seasons, China provides a range of ethnic, historical, and natural tourism sites across the country. The Chinese tourism industry revenues for the year 2019 were estimated to about CN¥ 5,128 billion, including business, recreational and other forms of tourism. However, the occurrence of the coronavirus hugely impacted the tourism industry worldwide. It created great instability and limited mobility for domestic and foreign tourists

To achieve this goal, the following issues that need to be addressed:

- The technological means have museums taken towards sustenance and recovery of operations considering coronavirus,

- The health measures have been taken by the museums considering coronavirus to maintain operations,
- The differences in approach by museums to recovery considering coronavirus,
- The lessons can museums learn from the coronavirus crisis for future crisis prevention.

Research methodology.

This study reviews existing literature related to the recovery strategies that have been implemented by museums in china using a case study of two museums (The National Museum of China and the Palace Museum). Moreover, electronic news releases related to the pandemic published on the selected museums' websites were reviewed and analyzed using content thematic analysis technique to produce the study's findings. The results of the study showed that both museums utilized various technological tools to ensure that they sustain their operations during the pandemics and facilitate their recovery from the impact of the pandemic.

We also study the idea of crisis management and preparedness for any external force that may effect businesses. How businesses can cope with the ongoing pandemic to secure their customers and what changes must one bring in today's world to welcome more people.

More so, the study found that the museums in question followed and implemented stringent health precautions and standard operating procedures as proposed by the Beijing city Municipal, that were like the recommendations of CDC. This ensured that the visitors of the museum were safe during their visits as well as the essential staff involved in the operational side, at the time when China was recovering from the pandemic.

This study has filled a literature gap that exists since it focuses on

museums and their recovery strategies from the pandemic impact. A lot can be learnt from this study in terms of coping strategies for pandemic that may be implemented to newly opening foreign tourism in other parts of the world. This research study serves as a basis of successful execution of crisis management that positively benefited the tourism industry.

This literature may be implemented on a policy level for other struggling industries or in different parts of the world to revive their tourism industries too.

SECTION 1. THEORETICAL ASPECT OF TOURISM MANAGEMENT IN CHINA

1.1 Essence of the tourism industry

The tourism industry in China is one of the major contributors to the economy of the country. The outbound and inbound tourism market in China is considered as the most observed tourism market worldwide. The tourism industry always creates jobs wherever it blossoms and is a vital instrument in increasing income levels of the community it is encouraged in. It increases flow of ideas and currencies, positively impacting the national and foreign trade (Su, et al., 2021). Some factors further strengthen the tourism industry in China such as domestic travels being highly profitable and bringing in high revenues. The growth of the tourism industry has a trickle-down effect on other industries such as infrastructure, transport, retail and even accommodation that the government takes interest in building up.

With its variety of landscapes and seasons, China provides a range of ethnic, historical, and natural tourism sites across the country. The Chinese tourism industry revenues for the year 2019 were estimated to about CN¥ 5,128 billion, including business, recreational and other forms of tourism. However, the occurrence of the coronavirus hugely impacted the tourism industry worldwide. It created great instability and limited mobility for domestic and foreign tourists. Back in 2013, the Chinese tourism industry grew by 14% in revenue and gave employment to almost 27 million people due to its diverse range of cultural, natural and historical sites (Textor, 2020). The coronavirus was first identified in the city of Wuhan in China and it spread like wildfire from there. Through strict lockdowns and security enforcements, China was able to control the spread

of the coronavirus, however, domestic tourism alone is said to have dropped by 43% for the year 2020. Citizens had been advised to stay home to protect themselves from the virus and practice social distancing (Ma, 2020). This situation has caused a major decline in the tourism industry both locally and internationally as requirements from travel have changed from time to time.

This study provides a detailed discussion on the impacts of the coronavirus on the tourism industry in China as well the measures being taken to recover from the decline. The research findings and statistics related to the effects are also presented in this study.

The tourism industry that contributes greatly to the GDP of most developed nations served as a global platform through which the coronavirus spread across continents and soon was declared to be a global pandemic. The industry that had served China graciously became the reason of spread of the virus to most parts of the world and soon after air travel was cut off. However, lessons from the SARS virus prepared most nations to implement policies that would deter the spread of the virus. At its peak last year, tour groups from Beijing postponed all their travel activities.

More so, Singapore, U.S, Australia, and other countries prohibited the entry of foreign nationals who had been to China. Various domestic and international flights in China were canceled in the wake of Coronavirus due to fear and panic and heavily affected the airline industry in China since a strict lockdown that even limited grocery runs was in place (Marian, 2020). More so, cruise businesses such as the Norwegian Cruise Line and Royal Caribbean also suspended their operations with China (Northam, 2020).

The Coronavirus occurred in China during one of its busiest travel seasons in the month of December. Since 10% of the world's tourists are

Chinese nationals, the foreign bans and domestic restrictions of mobility had to affect the world tourism industry (Koe, 2020). In most recent year, the focus of various travel companies has shifted towards Chinese nationals due to their interest in foreign travel (Globaldata Travel and Tourism, 2020) however, the occurrence of Coronavirus led to the suspension of trade and travel relationships with other countries such as Britain and the US (Reporter, China coronavirus outbreak: All the latest updates, 2020). The panic and impact of Coronavirus spread across the Asian continent. Various Asian countries have canceled travel and tourism agreements with China due to the virus.

Many tourists suspended their travels to China, for instance, 75% of the travelers of luxury travel agency put their travels on hold with the Southeast Asian region (Ekstein, 2020). China along with other tourist destinations in the Southeast Asian region such as Malaysia and Singapore were canceled by international tourists and rebooked for other destinations such as Southern Africa or Maldives very early on.

Moreover, other businesses being affected due to the pandemic in China include the electronics and cosmetic industry. Due to the suspension in business travel and hold on all exports in China due to policies of other nations, effects were expected to last at least 12 months. This implies that Coronavirus has had negative effects on various segments of the tourism industry in China including accommodation such as hotels, markets in tourist heavy areas and the transportation industry. It was stated by Chris Nassetta the CEO of Hilton that his company experienced massive losses, which were estimated between \$25 million to \$50million (Ekstein, 2020). In January of 2020, the ministry of culture and tourism in China had issued notices to suspend most business activities in the last week of January. The semi closed businesses greatly affected the Chinese New Year Celebrations

that account for most of the inbound foreign tourism in China (Wu, Lee, Xing, & Ho, 2021).

However, continuing in 2021, religious tourism or event-based tourism was badly hit in China. In 2021, number of people who traveled to China for the Chinese New Year Celebration fell significantly by 57.9% as compared to the previous year due to the new cases of the coronavirus reported in January of 2021. Moreover, there was a 71.5% decrease in the number of trips taken for the Chinese New Year compared to 2019, drastically effecting the industry and sustenance of the those involved. The Chinese New Year is a time of great celebration in China that sees a lot of foreign tourist, this year however, things had worsened due to the aftereffects of the pandemic.

The rise in cases in January also lead the government to announce new measures that restricted travel for leisure even during the busiest season. This however, helped sustain many local communities as travel restrictions meant that greater celebrations were done without leaving the city of residence and the locals benefited greatly. The weeklong holidays also reported a significant increase in those who enjoyed movies over the season. Cinemas were open and residents took advantage of it, to an extend that the revenues were record breaking compared to 2020 (McClain, 2021).

The pandemic also negatively effected the stock value of the tourism industry. A cross sectional study showed that the rise in cases in China negatively effected the stock prices and ultimately hit everyone involved in the tourism industry. Later in the year, the resurgence of the virus posed a second threat to the already depleted stock value of the tourism industry and the lack of support from the government agencies also played a vital role in instability of the sector (Wu, Lee, Xing, & Ho, 2021).

The industry reported to have contributed to the global GDP of 10.4%,

reported by the United Nations World Tourism Organization suffered severe losses due to the travel bans that most countries had imposed to restrict movement. Just in the first quarter of 2020, international tourism fell by 22% across the globe that lockdowns were implemented from February to March. The uncertainty and rapid changes in travel policies across the world caused most travel related stock to fall. This also includes events such as an increase in the oil prices and the decrease in the availability of the oil prices that led to the fall in the prices of tourism stock. While another factor was fear and consumer's ability to spend or invest that effected the decision greatly. Many consumers held their wealth and waited for a better opportunity to invest, in better times and with greater certainty (Wu, Lee, Xing, & Ho, 2021).

The international monetary fund reported in the winter of 2020 that it does not expect tourism levels to recover anytime before 2024. Since the first half of 2020 saw almost a 65% fall of global tourism and an uncertainty of the disease has led its experts to believe that tourism will not be recovering by 2023. The world economic outlook calculated a 4.4% decrease in the global economy in 2020. Many countries dependent on tourism would be worse hit like the Caribbean nations or the Fiji Islands. According to the report, Hawaii, a tourist capital of America saw 1 in every 6 job disappear by August of 2020 and Florida is reported to take up to 3 years to recover from the shock tourist economies have faced (Behsudi, 2020).

In Thailand hotels started laying off by August 2020 due to the lack of guests and high operational costs. This just further shows how Asia's hard work towards sustainable tourism has significantly been affected by the pandemic. By some estimates, the loss of 1 million USD in the tourism industry directly contributes to a loss of 2 – 3 million USD in other industries to the trickledown effect that the tourism industry has in the lives

of community and essential workers (Faulder & Sugiura, 2020). By many estimates, the world was not ready for the worse-case-scenario in the tourism industry, as the devastation of 2020 has left many experts appalled. By the end of the year when most tourist organizations were looking forward to polices that would ease travel, the world saw the mutation in the coronavirus. As different regions identified their own new strain, it posed a threat to many others, and we saw new travel bans and stricter lockdowns to contain the new outbreak. These travel bans were implemented on certain countries with not just the new and mutated strains but also on countries with extraordinary high positivity rates.

Many of these strains had been detected in different parts of the world such as the United Kingdom, Brazil, and South Africa, leaving no land safe. Just for a comparison, World Tourism Organization revealed that the total export revenues loss in international tourism were 11 times worse than those incurred in the 2009 global recession (Reporter, One Billion Fewer International Arrivals Make 2020 Worst Year in Tourism Industry, 2021). The World Travel and Tourism Council published data on EU countries and their expected financial losses such as Spain incurring a 79% decrease in international tourism in 2020 as compared to 2019. Germany was said to lose almost €38 billion; France could lose €48 billion in revenue and 2 million jobs in touristy territories (Reporter, One Billion Fewer International Arrivals Make 2020 Worst Year in Tourism Industry, 2021).

While looking at China specifically and seeing the impact of the corona virus on the travel industry in the region, many professions had been personally hit due to the pandemic. It demanded changes in the travel industry that would help sustain it through the most difficult times (Parulis-Cook, 2020).

The figure below shows the results of a survey question that asked for

the short-term impacts of the corona virus crises on the Chinese travel industry:

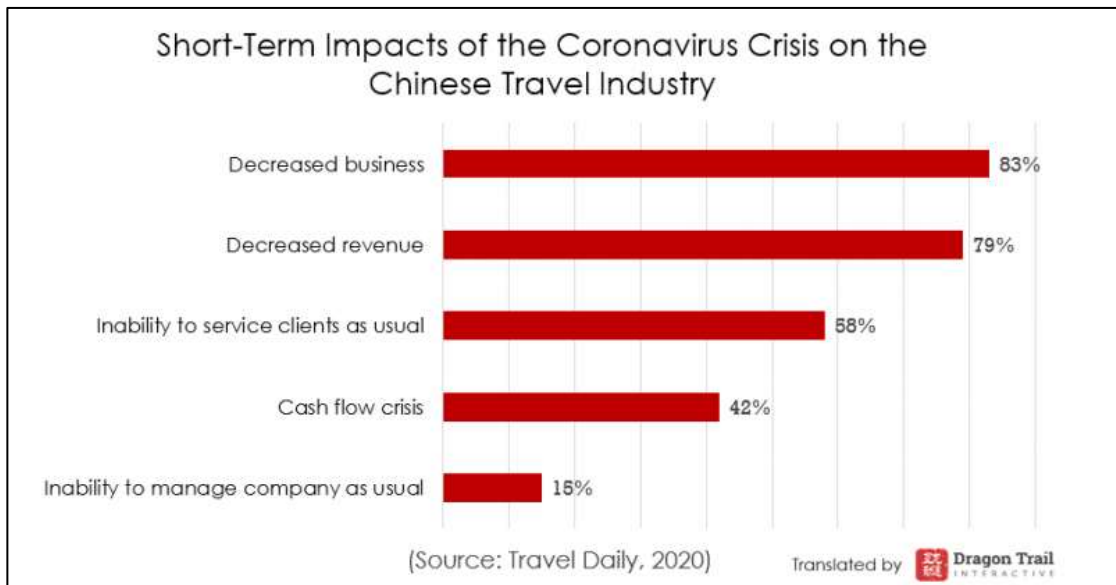


Figure 1.1: Short-term impacts of the corona virus crises on the Chinese travel industry (Parulis-Cook, 2020)

Globally the impact of covid has shocked communities and associated industries with more jobs being lost every day. Since recovery is expected not only slow but also in due time, this paper will discuss measures that have proven somewhat suitable for China and its economy to help others through this difficult time.

1.2 Features of Tourism Industry Recovery In China

The Coronavirus has caused major health challenges worldwide. The highly contagious nature of this disease makes this a unique crisis as well as the most contagious outbreaks in contemporary human history. It has been reported to be the biggest calamity to have occurred in the world decades after world war II, with more than 139 million cases and over 2.8 million deaths (as on 3rd April 2021) (Reporter, Coronavirus, 2021). The outbreak of coronavirus was first reported in the Hubei province, Wuhan City in China in November 2019 from when it spread across the world by March 2020 (Ranasinghe, 2021).

Considering its fast transmission and contagious nature, many governments across the globe have been forced to impose lockdowns to safeguard their citizen's health (Sharma, Thomas, & Paul, Reviving tourism industry post-COVID-19: A resilience-based framework, 2021). The virus spread posed a massive threat to people's lives and the measures taken to combat the virus such as lockdowns created a critical risk to the livelihoods of the masses (Sharma & Mahendru, Lives or livelihood: Insights from locked-down India due to COVID19, 2020).

The economic traumas resulting from the pandemic are being seen worldwide across various industries and sectors. While some industries have adapted to the situation through digital platforms while struggling to survive (Mehroliya, Alagarsamy, & Solaikutty, 2020), a few industries have experienced unprecedented declines due to travel bans and social distancing, thus finding it strenuous to meet day to day tasks. These industries include the restaurant and retail sectors. The restaurant sector has been specifically hit hard due to social distancing requirements and outdoor seating requirements. While most restaurants in main city areas or downtown areas are unable to host people outside, limited operating hours

and days also impacted business. In most places country wide lockdowns meant only takeaway were open which also meant less staff was required. At the same time due to uncertainty in income, most people preferred eating at home as a means of saving. As the disease spread, more and more people preferred staying home to save themselves from disease and opted for delivery services. This kept the retail and restaurant business afloat during turbulent times.

In the occurrence of crises such as Coronavirus, companies including the hospitality industry are forced to change their operational strategies. Crises cause high levels of uncertainty and thus normally require quick responses to fight the negative consequences (Ritchie & Jiang, 2019). Previous research has shown that the hospitality industry has little preparedness for crises, primarily due to lack of resources (Ghaderi, Mat Som, & Wang, 2014), lack of experience, and knowledge of handling such situations (Köseoglu, Morvillo, Altin, & De Martino, 2019).

According to (Novak, 2017), the hospitality industry has four sectors: food and beverages, travel and tourism, lodging, and recreation, all of which have been impacted by Coronavirus.

Food and beverage industry:

This is the largest segment of the hospitality industry as it covers all meals, snacks and beverages for immediate and delayed consumption associated to tourist destinations and lodgings. Therefore, we find many hotels have a restaurant attached to provide a holistic experience to their customers.

Travel and tourism:

Travel and tourism focus on the mode of transport used by the tourists during their touristy activities. These include public transport like buses, trains, ships and private transports like cabs and jets. For any

country, an enhanced travel function encourages people to travel more as it incentivizes them with their low-cost transport system. This not only attracts international travel but also encourages local travel.

Lodging:

Lodging is an integral part of safe tourism. From fancy five-star hotels to youth hostels, all of these come under lodging and provide an incentive to different age groups and socio-economic classes. While some travel for business and get accommodation in expensive guest houses and hotels, others use their summer and winter breaks to travel abroad. However, safety is the most important factor that will encourage families and women to travel to a specific community.

Recreation:

Recreation is the leisure activity or activities that keep tourists or travelers engaged in an area. The more activities an area has to offer, the better it is for the community in terms of employment as well as attraction of tourists. Most people travel on vacations where they want to enjoy and have a good time. Places like the zoo, theme parks, circus, sports etc. can give one a good time.

Further discussion will highlight the impact of coronavirus on the sectors of the hospitality industry.

The tourism industry is one of such industries that cannot stand still without the mobility of tourists. The outbreak of coronavirus has caused a 22% fall in tourist numbers in the first quarter of 2020 (compared to the same quarter of 2019), and the threat of 60% to 80% fall throughout 2020 (compared to 2019), this is one indication of the damage that Coronavirus can cause to the tourism industry (UNWTO, 20). More so, this sector is quite labor-intensive, therefore, slowdowns for a certain period puts millions at risk of losing their jobs, ergo causing a retraction to the progress

done on the front of sustainable development goals (UNWTO, 20).

The Impact of coronavirus on the tourism industry cannot be over-emphasized. With all countries imposing travel restrictions, lockdown, and border closure, the tourism industry was left devastated. Many countries have predicted massive income losses in their tourism industries for example Hongkong tourism is expecting to incur losses amounting to HK\$176,387 (US\$22,760) million in 2020 under mild conditions. However, it is expected that these losses shall continuously decline significantly as the tourism industry recovers gradually from HK\$28,443 (US\$3670) million in 2021 to HK\$15,035 (US\$1940) million in 2022 and HK\$12,000 (US\$1548) million in 2023 and 2024 (Zhang, Song, Wen, & Liu, 2021).

According to Davahli, Karwowski, Sonmez, & Apostolopoulos, (2020) research conducted in tourism in light of the coronavirus pandemic primarily covers topics connected to industry recovery (19% of papers), market demand (18% of papers), revenue losses (16% of papers), spreading patterns of coronavirus in the industry (14% of papers), job losses (10% of papers), health and safety dimensions (8% of papers), hospitality work force employment issues (7% of papers), travel behaviors (4% of papers), customer preferences (2% of papers), and pandemic social costs (2% of papers) (Davahli, Karwowski, Sonmez, & Apostolopoulos, 2020).

Global travel restrictions alone are responsible for the devastation of the tourism industry as government try to contain the disease during the global pandemic. Millions of jobs are at risk of those working in the tourism sector or associated with the tourism sector such as travel and transport, hotels and lodging etc. (Richter, 2020)

The figure below shows countries most impacted by the global pandemic due to restriction of movement:



Figure 1.2: Who's most vulnerable to COVID-19's impact on tourism? (Richter, 2020)

From the figure we identify China as the fourth largest economy dependent on tourism as a major contributor to its GDP. This also indicates that China's economy was hit very hard due to travel restrictions which

may have had a direct impact on its GDP (Richter, 2020).

The outbreak of coronavirus has brought the question of recovery and sustainability of the tourism industry. With various studies conducted on this subject matters. Scholars, practitioners, and governments have devised means of sustaining and recovering the industry. The last time the tourism industry came under light was during the global recession, since in most cases it is self-sustainable and massively growing in its own giving income to a lot of new communities. A few topics will be highlighted ahead.

Persson-Fischer and Liu examined the literature on tourism sustainability and the impact of coronavirus and found that there are six major themes in tourism and coronavirus literature: government crisis management, tourist perception, and decision-making, tourism service providers, new normal, tourism research, and inequality.

On one side, people have been arguing that during pandemic we must prioritize health over sustainability. However, the biggest issue during the pandemic has been about sustainability for all industries. The truth is that countries and companies are learning to deal with economic crisis and tourism, or any luxuries item is not on a priority for any organization or nation. It is understood that due to the travel bans, tourism has been impacted greatly, this means many local communities have lost their source of income, however, on a holistic level, no government can look into saving a certain section of the society while the health of the majority is at risk. Tourism during the pandemic had a lot of uncertainty, rapid change in policy and strict punishments for not wearing a mask, quarantine time and social distancing rules. The only way of countering sustainability is to show resilience, flexibility, collaboration, and co-

creation. Staying committed to the cause can ensure stability, being flexible to current changes during the pandemic can prove to be fruitful, collaborating and co-creating with others can pull in new audiences (Persson-Fischer & Liu, 2021).

Kaushal and Srivastava suggested that to revive the tourism industry, these measures must be taken; focus on the professional development of workers, increased hygiene, and human resource management. These are incredibly important when we think about growing the tourism industry (Kaushal & Srivastava, 2021).

Professional development of workers:

Kushal and Srivastava believe that bringing workers to an international standard of hospitality will not only increase tourism in the region but also allow a standardization and allow checks and balances to exist that can enhance the efficiency of the service.

Increased Hygiene:

Given that corona virus seems to stay for at least a few years, the time it will take to vaccinate a major chunk of the population, we must improve our standards. For all hotels and restaurants, there needs to be an increase in the cleanliness and hygiene aspect of business. These businesses can establish new SOPs that can help them enforce regulations that can increase the business. These can include frequent sanitization of hotel rooms, combined washrooms, restaurant tables etc.

Human Resource:

Since the tourism industry thrives on cultural experiences that in most cases are informal in their operations. Though it brings income opportunities to these communities, it also means that there is a variation in the level of service. Other than what the tourist experience, establishing human resource practices will ensure compensation, benefits, personal

growth, and smooth operations (Kaushal & Srivastava, 2021).

(Sharma, Thomas, & Paul (2021) proposed a resilience-based framework for the revival of the global tourism industry. This framework discusses resilience and transformation where the authors argue that governments, market players, and local communities should work together to ensure the resilience of the industry. This can be done through technology adoption like the Internet of Things (IoT) and Artificial Intelligence (AI), focusing on sustainable tourism which shall result in environmental and societal well-being.

Social media was also suggested as a tool to revive the industry, Hysa, Karasek, & Zdonek, (2021) using coronavirus as a backdrop, examined the social media use among different generations (Baby Boomers (BB), and Generations X, Y, and Z) and the extent of use for trip planning. The results revealed that social media use frequency dropped with an increase in age and the presence of generation-usage -gap, where younger generations use social media platforms such as Instagram to seek opinions about tourist places as compared to older generations. This implies that social media is a massive marketing strategy, which can be adopted by the tourism industry to recover from the coronavirus effects.

Some scholars have proposed alternative accommodation to support the tourism industry recovery. For instance, Cai, et al., (2021) examined customer satisfaction towards green ryokans using a survey in Japan as part of the preparation for post-coronavirus recovery of the tourism industry and the results suggest that ryokans are; more flexible than hotels, have strong anti-risk capabilities and have garnered more attention from tourists and support from the Japanese government. This implies that ryokans can be a better accommodation alternative for tourist's post-coronavirus since they are well received by customers.

Though the coronavirus pandemic has caused a halt in the development of tourism, it has shed light on the new opportunities that practitioners must consider to reform and innovate tourism. According to the (WTCF, 2020), various policy makers are adapting different measures to rebuild tourism industries in their respective countries. These measures have been initiated at both governmental and organizational levels.

While the corona virus has certainly caused massive damage to huge economies, however, we saw even this crisis bring people and communities together. As individuals' desire to connect and socialize was once again demonstrated, we saw an increase in the internet activity. The freeze in economic activity was astounding because it gives a hint of what the world if most tourist activities are suppressed. The coronavirus has given an unparalleled turning point in the revolution of the world's tourism industry, forcing everyone to look for more sustainable options. The figure below summarizes the what some scholars have to say about the corona virus and the future of tourism (Persson-Fischer & Liu, 2021).

Perspective	Statement
Non-capitalist exchange or incomplete capitalist exchange	COVID-19 provides opportunities for non-capitalist exchanges or incomplete capitalist exchanges in the tourism industry.
Conscious citizen	Consumers, travelers, entrepreneurs, and leaders call for changes in the tourism industry.
New way of travel	The rise of a travel method that allows fewer entrants but generates more benefits.
Host-guest relationship	Hosts and guests who go hand in hand in adversity will cultivate a good relationship.
Corporate social responsibility	Companies will actively assume their social responsibilities.
Self-improvement of business and government	Companies and governments will learn from COVID-19 and make self-improvements (increasing resilience and creativity) to improve their long-term viability.
Widespread use of ICT	Popularization of digital and intelligent tourism products
The well-being of tourists and community residents	While limiting economic and social development and unsustainable behaviors in the tourism industry, the focus on a better life actually promotes growth in other areas, such as social and environmental well-being and meaningful interpersonal relationships.
Relations between countries	Governments will realize the importance of knowledge exchange, cooperation, and joint crisis management
Tourism supply chain	A tight and more sustainable global tourism supply chain.

Figure 1.3: Scholars' hopes for the future of tourism (Persson-Fischer & Liu, 2021)

1.3 Methodical Approaches towards Tourism In China

This research includes a case study of two museums in China, namely, The National Museum of China and the Palace Museum. This study aims to explore:

- (3) The measures that museums have taken to ensure sustainability and recovery from the impact of coronavirus.
- (4) The lessons learned from the coronavirus crisis for assessment of crisis management and readiness for museums in the future.

Thus, this chapter starts with the theoretical framework of the study, and then it discusses a selected review of research related to the tourism industry recovery in the context of the coronavirus crisis.

A conceptual framework provides an outline of the key factors, variables, and the connection between them graphically or narratively. It can elaborate the simple conceptual map that provides coherence to the empirical inquiry in the study (Miles, Huberman, & Saldaña, 2018). It simply shows and explains the connectedness of variables and concepts (W., 1994). The conceptual framework of the current study highlights the concepts and variables upon which the study is grounded on. It is guided by Mitroff's five-stage model of crisis management.

According to Mitroff, there are four stages to crisis management, which are as follows: signal detection stage, prevention/ preparation stage, damage containment stage, recovery stage, and learning stage. The first stage (signal detection) deals with detection of any threats which may turn into a crisis (Paraskevas & Altinay, Signal detection as the first line of defence in tourism crisis management, 2013). Mitroff (1998) stated that long before crises happen, they send off early signals which are often ignored by organizations. It is vital that sniff out any early signs and attends to them since early detection enables the organization to take relevant

measures to prevent or prepare for the crisis (Paraskevas, Altinay, McLean, & Cooper, 2013). The second stage (prevention/preparation); where an organization directs its efforts towards preparation and preventing a threat from turning into a crisis.

According to Mitroff (1994), preparedness implies that organizations have an action plan to respond to crises which may include human resources and other actions. The third stage (Damage Containment); here is that the crisis is prevented from escalating and its damage is controlled. Here the crisis team works to ensure that the crisis does not spread into uncontaminated areas. If containment of the crisis fails, external stakeholders may be affected while containment protects the organization's reputation as well as confinement of the damage within the organization (Mitroff & Harrington, 1996). Stage four (Recovery); in this stage, organizations adopt recovery strategies which help them to resume back to normal operations (Mitroff & Harrington, 1996) and organizational members resume back to work. Stage five (Learning); here members of the organization evaluate their efforts towards crisis management and the lessons. Failure to learn from a certain crisis may cause a reoccurrence of a similar crisis while successful learning may lead to new policies and procedures applied to future crises.

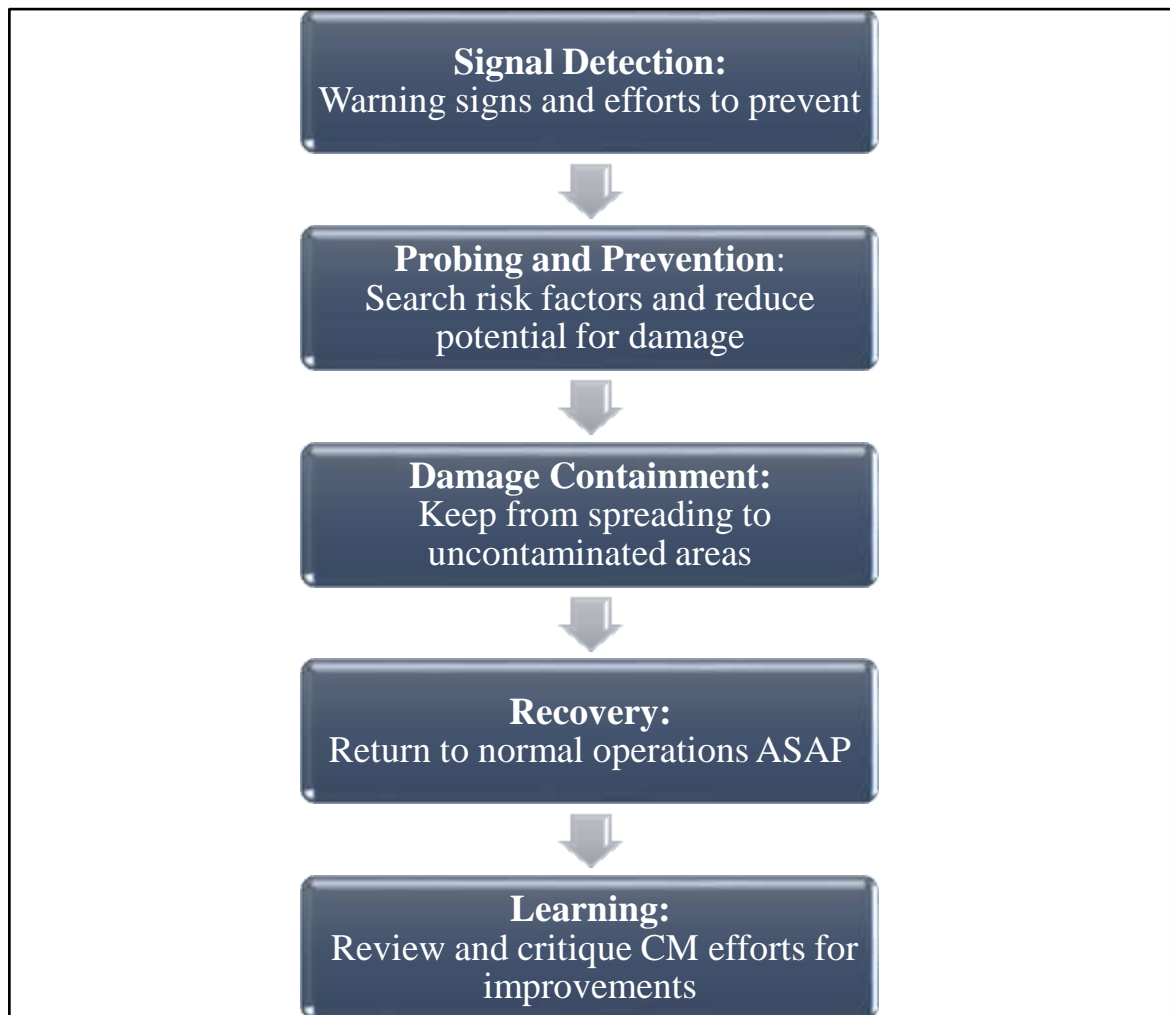


Figure 1.4: Mitroff's Five Stage of Crisis Management (Mitroff, 1994)

The **research objectives** of this research are as follows:

1. To find out the technological measures that museums have taken towards sustenance and recovery of operations considering coronavirus.
2. To discover health measures have been taken by the museums considering coronavirus to maintain operations.
3. To examine the differences between museums in approach by museums to recovery considering coronavirus.
4. To investigate the lessons museums have learnt from the coronavirus crisis for future crisis prevention.

The study attempts to answer the following **research questions**:

1. What technological means have museums taken towards sustenance and recovery of operations considering coronavirus?
2. What are health measures have been taken by the museums considering coronavirus to maintain operations?
3. Are there differences in approach by museums to recovery considering coronavirus?
4. What lessons can museums learn from the coronavirus crisis for future crisis prevention?

This research is an in-depth understanding of a phenomenon that aims at understanding the impact that the pandemic has had on the operations and recovery of the Museums in China. As such, a descriptive research design was adopted from the current study. Since the study aims at arriving at a thorough understanding of the issue, this research design was found well suited for the current study to meet the objectives of the study and to fill the methodological and contextual gap that exists in this area of study.

This research is investigating the recovery measures of the museums in light of the pandemic which swept China in 2019. This research selected two museums in China as case studies for the current research, (The National Museum of China and the Palace Museum) both of whom are located in China's capital Beijing. These two museums were found suitable for the current study investigation since they have well documented their efforts in the prevention from the pandemic and their recovery processes in their official communications.

Situated in the heart of Beijing, **The Palace Museum of China** was

established in 1925, the Palace Museum is found in the imperial palace of the consecutive Ming (1368-1644) and Qing (1644-1911) dynasties. It is also known as the Forbidden City. It has a vast collection of paintings, calligraphy, ceramics, and antiquities, making it one of the most prestigious museums in China and the world. In 1987 it was listed as a UNESCO World Heritage site (Home Page, 2020).

The National Museum of China (NMC) is China's highest-ranking museum which has a vast collection of traditional cultural artifacts. Its preparatory office was founded in 1912. This Museum houses millions of ancient and modern artifacts, rare books, and other works of art. It has in store 815,000 pieces of ancient cultural heritage, 340,000 sets of modern cultural heritage, and over 240,000 rare and antiquarian books (Home Page, 2020).

The method of data collection in the current study is documentation review/analysis. This study reviewed news articles related to coronavirus published between (2020-2021) on the museums' (The National Museum of China and the Palace Museum) official websites.

Document analysis is a systematic method of reviewing and evaluating documents both printed or electronic. Here, it is required that documents are analyzed to gain understanding, and get empirical knowledge (Corbin & Strauss, 2008). Documents normally contain texts or images that have been recorded without the intervention of the researcher. These documents may include; diaries, background paper, books, brochures, event programs, journals, letters, charts, newspapers, press releases, among others. As a research method, document analysis is commonly applied to qualitative case studies to produce deep descriptions of a single issue, even or organization (Yin, 1994) (Stake, 1995).

For data collection, this study used only secondary data sources

(news articles). The data collection procedure was in three phases, Phase 1 involved the review of the museums' official websites for news articles related to coronavirus/coronavirus published between (2020-2021), this period was assumed to be the recovery period from the pandemic. In Phase 2 the gathered news articles were compiled in tables for further analysis. Phase 3 involved the reading/reviewing and coding of the gathered data.

In this investigation, data were collected from a review of documents (news articles). Therefore, this qualitative data was analyzed using content thematic analysis. The data collected were coded and summarized into tables as shown in appendix . Themes were derived from the coded data and summarised in tables as well and the themes were used to report the findings of the study.

Thematic analysis was used since it highlights the “implicit and explicit ideas within the data” (Guest, MacQueen, & Namey, 2011). Ezzy (88) explains thematic analysis as follows:

“Thematic analysis aims to identify themes within the data. Thematic analysis is more inductive than content analysis because the categories into which themes will be sorted out are not decided prior to coding the data. These categories are induced from the data. While the general issues that are of interest are determined before the analysis, the specific nature of the categories and themes to be explored are not predetermined.

(King, Horrocks, & Brooks, 2018) expounded that “It is often used in a commonsense way to refer to patterns in the data that reveal something of interest regarding the research topic at hand.” The themes derived from

the analysis of the documents aimed to explain the differences and similarities between the approaches used by the museums in recovery and sustenance efforts during the pandemic crisis.

(Braun & Clarke, 2006) and (Dörnyei, 2007) recommended that various steps must be taken when interpreting qualitative data. Several stages to be taken to interpret qualitative data. Generally, these include initial coding, grouping, seeking for themes, defining, naming themes, and report. The researcher followed all these steps when analyzing the data.

Based on the research questions and research objectives, the following **hypotheses were developed:**

H1	Technology will positively influence the recovery of museums from the coronavirus crisis
H2	Stringent health precautions will positively influence the recovery of museums from the coronavirus crisis
H3	Museums' recovery from the coronavirus crisis will be influenced by both technology adoption and stringent health precautions
H4	coronavirus crisis lessons will positively influence action towards recovery and future crisis management by museums

Table 1.1: Summary of research hypotheses

This section described the research methodology, research design, data collection procedures and data analysis procedures used in the current study.

SECTION 2. PRACTICAL ASPECTS OF TOURISM MANAGEMENT IN CHINA

2.1. Organizational and economic characteristics of the tourism recover post-pandemic.

Governments have played a huge role in ensuring the recovery of the tourism industry with various governments drawing up policies and other interventional measures to aid the survival of this industry (Higgins-Desbiolles, 2020). While businesses in various industries are looking to approach normal operations, including the tourism industry, they are all relying mostly upon “government stimulus packages and interventions “to enhance their productivity. For example, TUI, the world’s renowned multinational tourism organization, has taken aid from the UK and German governments and has since reported cost reduction in its operations across the globe (Higgins-Desbiolles, 2020).

All businesses in fact are looking towards the government for policy level changes to help sustain their income. Due to frequent lockdowns and social distancing, many businesses have been unable to survive, hence organizations are looking for bail out packages or soft loans to keep them afloat. Some strategies from the government include direct payout, cash transfers and cash-based relief programs. Another common strategy by different governments is wage subsidies to those organizations that manage to retain staff instead of letting them go during the pandemic (Reporter, Coronavirus bailouts: Which country has the most generous deal?, 2020).

The tourism industry is not only hoping for relief packages from the government, rather, it is looking for some stability because in the past year, but continuous change in travel policies have also caused major drop in the

stocks in the tourism industry. With transport, leisure and restaurant industries already suffering, there is no external injection of wealth that can support local communities (Wu, Lee, Xing, & Ho, 2021)..

In the figure below we see how Higgins-Desbiolles, (2020) suggests a tourism friendly policy should be implemented that benefits the local community.



Figure 2.1: Community-Centered Tourism Framework (Higgins-Desbiolles, 2020)

This Coronavirus situation has been completely different from other crises since it has prompted policy impact specifically in the tourism industry (Hall, Scott, & Gössling, 2020). Some scholars have suggested government subsidies as a way to help the tourism industry recovery, for instance, Tsionas proposed government subsidies to support tourism

industries by allowing “opening at limited capacity” of almost 33%. This has led to collaboration between government and organizations, when discussing Macaus’ response to the coronavirus in a “3-wave analogy,” McCartney 2020 remarks that the recovery wave shall move toward “public-private partnership and cooperation.”

Most governments have offered financial aid to keep tourism businesses afloat and ease their recovery process from the pandemic impact. The next section highlights responses from some of the governments to Coronavirus on the operations and recovery of the tourism industry.

**Table of country wise response of governments to corona virus on the
tourism industry**

Country	The response of the government to coronavirus on Tourism Industry
Austria	The Federal Ministry of Agriculture, Regions, and Tourism along with the Austrian Bank for Tourism Development has initiated a coronavirus package for tourism of EUR 100 million to provide loans for tourism sector SMEs to ease liquidity concerns connected to the management of working capital for three years.
Australia	<p>The Australian Government's announced an AUD 76 million Rebuilding Australia's Tourism Package on 19 January 2020 to help businesses affected by the bushfires, and the coronavirus.</p> <p>The package includes:</p> <ul style="list-style-type: none"> •AUD 25 million international 'There's Still Nothing Like Australia' campaign • AUD 20 million domestic 'Holiday Here This Year' campaign •AUD 5 million to support the international public diplomacy efforts to mitigate impacts on Australia's interests.
Belgium	If a traveler's holiday package is canceled, customers shall be offered a voucher of similar, valid for at least one year

Brazil	The National Development Bank has introduced a working capital loan in the tourism industry for SMEs. also an airline relief package has been put in place.
Canada	The Canadian Experiences Fund (CEF) has offered funds worth CAD 1 million to alleviate financial burdens on indigenous tourism businesses.
Chile	Packages comprising tax payment deferrals, flexibilities in tax payment, and other measures of providing more liquidity to the companies hugely affected were put in place. SMEs in the country, specifically the tourism sector, will receive the advantage of these packages
Colombia	<p>The Ministry of Commerce, Industry and Tourism introduced a credit line, “Colombia Respond”, of USD 86.4 million to help the enterprises, with up to USD 62 million assigned to the tourism sector, including airlines.</p> <p>Provisions including VAT exemption, payment of fiscal contribution deferrals, zero-tariff peso among others were introduced.</p> <p>A communication channel has been launched with the global authorities of tourism in Latin American and tourism organizations to disseminate information relating to good practices</p>
Costa Rica	The Costa Rican Tourism Institute announced a three-month tax suspension on air ticket sales and income

Estonia	<p>accumulated per tourist for companies that request non-payment due to liquidity problems from April to July 2020</p> <p>The Ministry of Economic Affairs and Communications in collaboration with the Kredex Foundation (a public financing institution for Estonian businesses) and Enterprise Estonia has introduced a EUR 25 million “aid package” to aid the tourism industry</p>
France	<p>The Prime Minister announced that the government will add EUR 18 billion to the “Marshall Plan for Tourism” for the tourism industry</p>
Germany	<p>The Federal Government Centre of Excellence for Tourism has introduced an information webpage relating to coronavirus's effects on the tourism industry (https://corona-navigator.de/).</p>
Greece	<p>The Ministry of Tourism has created a Crisis Management Committee for Coronavirus</p>
Hongkong	<p>To support the recovery of the tourism industry, the Hong Kong government has offered HK\$700 million to the Hong Kong Tourism Board for development and established an Anti-Epidemic Fund Travel Agent Subsidy Scheme to support travel agents. Eighty percent of travel agents in Hong Kong have received a one-off HK\$80,000</p>

	subsidy via this scheme (<u>International Labor Organization, 2020</u>). Not part of OECD-edit this text later
Indonesia	The government has presented a \$725 million stimulus package for tourism revival
Italy	The government offered a EUR 4 billion bailout package for the tourism industry to reinstate Italy's image to the world
Japan	After the end of coronavirus, the Japan Tourism Agency offer USD 2.2 billion for the building of tourist destinations and make them appealing by developing the travel environment, and entice international tourists
Korea	The Korean Government offered financial/fiscal aid, relief in taxes, and support for jobs/employment for the tourism industry
New Zealand	NZD 400 million has been offered to a Tourism Recovery Fund (TRF) in Budget 2020
Poland	A campaign “Poland Don't Cancel, Postpone” was initiated by the Polish Tourism Organization for tourists to use the already purchased services on a convenient date

Singapore	To support the tourism industry, Singapore Tourism Board (STB) has initiated a Tourism Recovery Action Task Force (TRAC) for designing and implementing plans
South Africa	In the hospitality and tourism sector, a relief package of approximately \$11 million was offered for MSMEs
Spain	The Secretariat of State for Tourism offered deferral of interest and principal payment of loans offered earlier
Switzerland	The Swiss Parliament suggested extra federal funding of CHF 40 million for Switzerland Tourism (ST) for 2020 and 2021
United Kingdom	Currently, in collaboration with the UK government, VisitBritain is working to design a recovery campaign for promoting UK tourism post-coronavirus.
United States	The government has offered a USD 2 trillion stimulus package that is for all businesses with travel as top priority

Table 2.1 Government response to coronavirus. (Sharma, Thomas, & Justin, Reviving tourism industry post-COVID-19: A resilience-based framework, 2021)

City wise response and recover measures for Coronavirus:

1. Macao

Quick responses from both industry and governments have been in place. For instance, using Macau as a case study, Loi, Lei, & Lourenco

(2021), studied how the city deals with coronavirus disease, focusing on government interventions and responses of the gaming concessionaires operating integrated resorts. The results indicate four areas of response; Survival, the New Business Norm, Business Rebound Strategies, and Corporate Social Responsibility (CSR). To survive, the hotels/tourism industry in Macau devised the following measures.

Labor cost reduction: through the provision of leave-taking packages to staff, offering personal development programs, and non-renewal of overseas labor contracts.

Operating cost reduction: By cutting marketing expenses for international target with a focus on local marketing campaigns such as Footaction and Staycation to attract local population patronage as part of Corporate Social Responsibility, reduction of operating hours.

Following new business norms: By following new procedures such as mandatory face masks wearing by both guests and staff, ensuring hygiene and safety of customers by following the newest guidelines issued by the UNWTO on 28 May 2020 on restarting global Tourism (UNWTO, 20), here, new technologies are tested and adopted in the tourism industry such as UV Disinfection Robot, touchless devices (door opener, check-in/out devices, virtual TV remote control).

Designing new Business rebound strategy: Here tourism business is using this opportunity to maintain and develop the hardware of facilities such as completing construction on new sites, offering staff training via online classes and other media, emphasizing brands through the promotion of safety and hygiene as well as promoting business to the locals.

Focus on Corporate social responsibility (CSR): Here hotels are donating face masks to government and charity organizations, maintaining local employment, and housing locals returning from abroad for the 14 days

quarantine period. Some hotels even offered cash coupons to staff and recommended them to spend on local small to medium enterprises. In addition to being available for housing on return from foreign lands, the hotels were also available for medical observation, knowing that city had poor to no infrastructure.

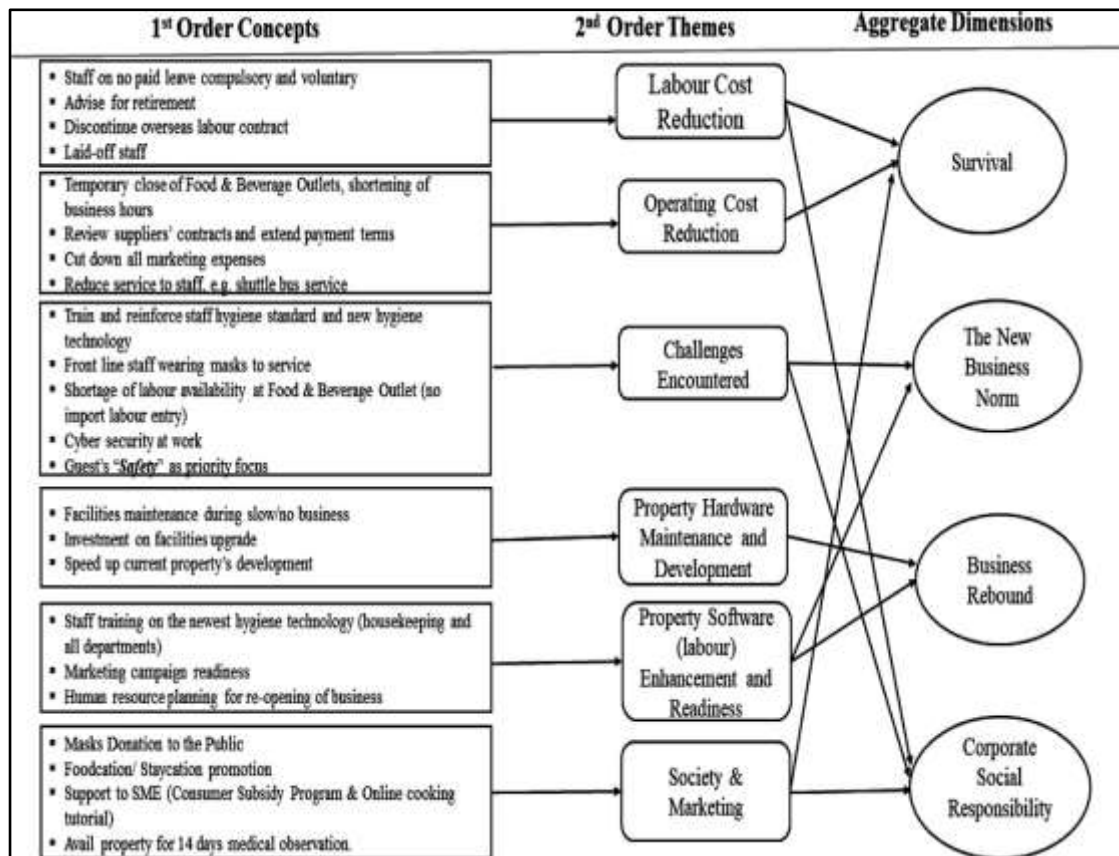


Figure 2.2: Macau's successful tourism industry sustenance model (Loi, Lei, & Lourenco, 2021)

2. Athens

A study by Pappas (2021) aiming at examining the impact of coronavirus on holiday intention among adult permanent residents of Athens, Greece found out that age played a significant role in determining intention for travel. Since 26th February 2020, when the first confirmed case of the coronavirus was identified in Greece, the government has

implemented strict measures to control the spread of the disease. This includes the partial closure of educational institutions and complete suspension of non-essential activities. Stricter policies were followed in March of 2020 when conditions in Italy started to worsen due to the lack of medical facilities. These strict actions not only communicated the seriousness of the problem to the people but also controlled the wide spread of the disease. Among Greeks, since older individuals are susceptible to the virus, they were more scared for their health and wellbeing. This has caused psychological and economic stress with participants reporting higher levels of fear and anxiety and a 73% decline in income (Pappas, 2021).

3. Oklahoma City

Smart, Ma, Qu, & Ding, (2021) examined how two hotels in Oklahoma City had coped with coronavirus challenges and the results indicate that the hotels coped by implementing three major strategies which included change in daily operation by implementing social distancing, closure of buffet and swimming pools and temporary closure of the midscale hotel in Oklahoma to reduce cost.

Change in daily operation: Major changes in daily business included staff wearing personal protective equipment, implementation of stricter cleaning and sanitation procedures in dining areas, public restrooms and guestroom, the use of disinfection machines.

Limiting access to public spaces: The hotels also closed off buffets and replaced them with grab and go type meal boxes. The swimming pools and fitness center were also closed off to limit social interaction. Additional signages were placed in prominent spaces of the hotel including the front desk, elevators, lobby and even restrooms.

Shutdown of certain operations: Since occupancy levels were too low

to sustain the business, the management decided to close the midscale hotel and directed all such accommodation to their upper-scale hotels. This limited the operation costs greatly.

Staff Layoff's: Since the midscale hotel was closed, unfortunately 80% of the staff was laid off and 20% of staff was retained on pay cuts. It was a difficult yet important decision to sustain the business as it was considered the darkest day in the history of the hotel's life (Smart, Ma, Qu, & Ding, 2021).

4. Italy (Florence, Milan, Rome, and Venice)

Pasquinelli, Trunfio, Bellini, & Rossi, (2021) studied the response of the over touristified in Italy; Florence, Milan, Rome, and Venice to the post-pandemic crisis by studying their Facebook communication in summer 2020 at the end of the first lockdown in Italy. The results of the study suggest that these cities considering the pandemic are proposing a shift towards more sustainable brands to decrease congestion caused by tourism in the city, extending tourism to neighboring villages (staycation) instead of concentrating in the city centers to promote local tourism after border closure to international tourists, and suggesting new ways of exploring the for instance by cycling and trekking. They also discussed how branding needs to change in times of crises, for instances, it was better for Milan to not mention the coronavirus safety precautions in its official communication as it caused a lot of controversy for Barcelona. Moving towards sustainable grounds is key to success in the future for any touristy city. Branding and communication needs to adapt with time and play smartly especially in a time of crises management (Pasquinelli, Trunfio, Bellini, & Rossi, 2021).

5. Ho Chi Minh City

Huyen & Trang, (2020) studied the role of human-machine interactive (HMI) technologies; artificial intelligence (AI), and virtual reality (VR)-enabled applications in the revival of the tourism industry in Vietnam's, Ho Chi Minh City post-coronavirus. The study reveals that HMI devices have a significant impact on the quality of service which leads to tourist satisfaction and loyalty. Meanwhile, the adoption of such devices requires commitment from organizations and investment in such futuristic inventions. Meanwhile, tourists' use of such devices is dependent on acceptance of technology. These results imply that technological devices as such can play an important role in the sustainability and recovery of the tourism industry. A study conducted on customers of logistics service providers also revealed some insightful information, that is customers satisfaction is directly proportional to empathy, assurance, tangibles offered and reliability of service. For most customers, assurance and empathy seemed to resonate most with them. They felt that a service provider that reflected these qualities had better services (Huyen & Trang, 2020).

2.2. Analysis of your Tourism Recovery in China

Yan et al.'s study reported that by May 2020, China reported almost zero cases of corona which led to the lifting of many restrictions like physical-distancing and obligatory nucleic acid testing. This saw safe zones activities resuming back to the new normal but with safety precautions still in place like mandatory mask-wearing on public transport and health QR-code monitoring (Yan, Chen, & Wang, 2020).

The path to tourism recovery has been quick as reported by Yan, Chen, & Wang, (2020). This survey study has the following results:

Boost in hotel occupancy and domestic flight passengers recovered by 90% almost like pre-pandemic figures as shown in the figure below:

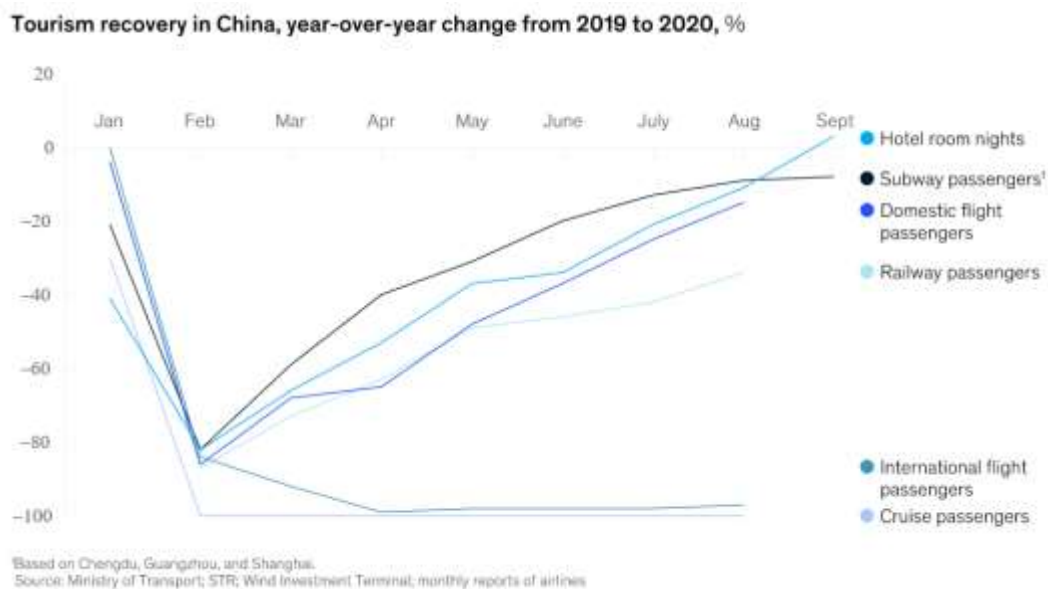


Figure 2.3: Tourism recovery in China – 2019 vs. 2020

Increase in various local domestic travels with 70% of locals open to taking trips around national day in October 2020. These local leisure trips saw a shift in format with most tourists choosing a self-guided tour or road trip in May 2020. However small group tours were also considered by local tourists by August of 2020 (Yan, Chen, & Wang, 2020).

The results further showed that confidence in domestic travel was restored among the Chinese population while outbound trips were predominantly considered unsafe. This is an important note since it reflects their sentiment towards international travel and their intention to travel domestically only.

The Chinese main priority is to maintain zero cases in China since the recovery of international travel shall be gradual. And therefore, the Chinese government has not put in place any travel bubbles. However, borders were opened to low-risk regions such as the administrative region of Macau and Guangdong Province in August 2020 and allowed to seek travel permits starting from September 2020. Meanwhile, according to the policy then, a nucleic-acid-test certificate and health QR code was still required even though travelers had been spared the obligatory quarantine.

According to Yan, Chen, & Wang, (2020), there are two extensive recovery strategy categories; “zero case first” strategy and “balance and manage.” which are followed by different countries. The “zero case first” is related to those markets with very low coronavirus contraction rates, thus, travelers have high confidence in travel. China adopted this recovery strategy which resulted in a strong domestic recovery through activities like hotel stays and air travel. The scholars suggested that such markets must focus on revenue-management strategies and demand recovery. These countries are in a better state to initiate travel for business and leisure since the disease is still in control.

The balance-and-manage strategy is for those markets with high rates of coronavirus contraction rate leaving individuals to be anxious about travel. For such markets, for example, United States with 49% contraction rates by May 2020. It is suggested that they focus on restoration of confidence by implementing health and safety measures, then

only can they think about allowing free travel even domestically. Such nations need to manage the disease better, provide to their people in their time of need and then think about opening borders for foreign travel.

According to Knight, Xiong, Lan, & Gan, (2020) study based on perceptions of practitioners in the four tourism and hospitality sectors in Wuhan and Hubei Province (cruise lines, hotels, travel agencies, and touristic attractions) from a vulnerability assessment presented three themes in response to coronavirus in Wuhan (Knight, Xiong, Lan, & Gan, 2020).

Exposure: The results showed that, throughout Hubei Province, tourism and hospitality businesses had highly been exposed to coronavirus especially for travel agencies with international linkages. More so, participants expressed their fear of bankruptcy in May or June 2020. Hotels suffered losses due to the closure of the spring semester since they relied on college students from all over China as customers for spring season. All supporting businesses were affected drastically. Some tourist attractions centers were left unexposed due to the seasonality-sensitivity of the virus, as remarked by the general manager of Shennongjia National Park. Reliance on certain customer groups left some businesses vulnerable for instance the Yangtze River cruise was exposed due to its reliance on seniors and travelers from outside the province.

Sensitivity: regarding sensitivity, it is important to look at the impact of the initial outbreak and how certain shape the extent of the impact. The participants had differing views concerning recovery hope. Most of the participants from touristic attractions (79.2%) had a positive view on the recovery of their sector, this is because they are owned by the state and thus receive support. Travel agencies followed with 47.6%, cruise lines with

30.0% and hotels with 24.4%. The lack of confidence in recovery by hotels was connected to massive costs of rent and student market loss.

System adaptiveness: in terms of immediate response to the impact of the outbreak, hospitality and tourism businesses throughout the Hubei Province have shared approaches. Cost-cutting was the common short-term strategy employed by salary cuts by 49% by travel agencies, and 38.1% by cruise lines. Meanwhile 35.5% of hotels put a halt on their rental payments and 37.5% attractions centers suspended their payments to the banks. All sectors had different strategies for dealing with coronavirus, travel agencies placed their focus on in-province experiences (rural tours, car trips, camping outside cities and nature tours) and away from inter-provincial or international tours. These agencies adapted with time, selling an experience that felt safe to the residents since they were confident in the reporting of their province. These agencies also called for government intervention in lifting travel restrictions and offering residents summer tourism vouchers. Hotels responded by adopting the use of automated no-contact check-in/out processes, building rooms with larger windows to improve airflow, and depended on the provincial government for marketing and restoration of the Hubei destination image to foreign and local clientele (Elengoe, 2020).

Touristic attractions in Hubei were ordered by the government to disinfect based on guidelines and limit operation capacity, thus, these attractions resorted to the transformation of offline mechanisms into online platforms as well as quickening the development of online ticketing systems. They also expected the government to issue guidelines on return-to-work policies and new workplace sanitation and safety standards. The nation was striving for a new normal where they could return to their daily lives and live past what had happened in December 2020.

Yangtze River cruise lines in response to mitigate virus impact focused on local clientele, limiting the five-day-long cruises to a single day, and holding activities on the ship in less crowded open spaces.

An exploratory study by Hao, Xiao, & Chon, (2020) reviewing the general impacts of coronavirus disease 2019 (coronavirus) pandemic on China's hotel industry, proposed a management framework to discuss anti-pandemic phases, principles, and strategies. This study further suggested that Coronavirus shall have a lasting effect on four primary aspects of China's hotel industry: multi-business and multi-channels, product design and investment preference, digital and intelligent transformation, and market reshuffle (Hao, Xiao, & Chon, 2020).

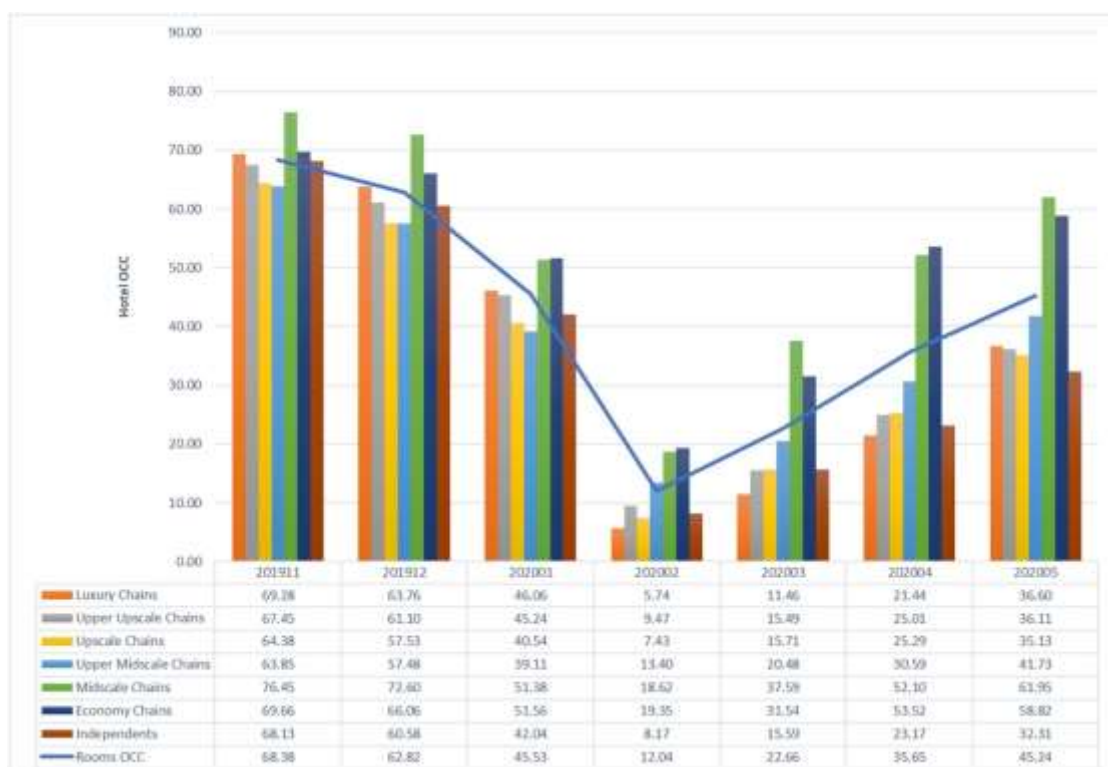


Figure 2.4: The occupancy of China's hotel industry according to different scales

Multi-business and multi-channels: Hao, Xiao, & Chon, (2020) suggested diversification to their existing business models. Since the hotel

has space, it can rent it out to public and private events for multi-streamed income.

Product design: Hao, Xiao, & Chon, (2020) emphasized on how the product should evolve with times. Chinese hotels have their own grandeur and should position themselves with the right audience. New, well maintained hotels adapted with the crises and communicated essential value even during the pandemic. Operational changes such as signage and frequent disinfection evolved the reputation of the hotel to be safer.

Digital and intelligent transformation: Businesses that were open to change had a greater chance of survival during the pandemic. Most offices sent their employees to work from home which reduced operational cost. Similarly, hotels that were able to digitalize their experience were regarded as safer and modern. These include contactless check-in and check-outs, QR code menus and online payment options. It also caters to the belief that there is less of a human error because everything is online and recorded.

Market Reshuffle: The pandemic taught many lessons but one lesson it taught to small and medium businesses was to push for higher standards. Hotels that were poor quality were less preferred in an era of frequent sanitization.

2.3. Evaluating the effectiveness of Tourism Recovery in China

Most Chinese museums closed as soon as the lockdown was implemented on the 24th of January 2020 to reduce the risk of disease transmission. However, right in the beginning of February 2020, the Ministry of Culture and Tourism in China launched an online tourism service for the public. The aim of it was to enrich the lives of the citizens who were locked in their homes due to the pandemic. The viewers were able to browse through almost 30 exhibition halls of the National Museum of China. People could read up on historical relics at the Palace Museum in Beijing. According to the Ministry of Culture and Tourism of China, the country has established almost 2,000 exhibitions online for the public attracting more than 5 billion visits during a special spring festival in January of 2021.

The ministry also pushed museums to collaborate with many influential platforms for virtual livestreaming events. Subsequently, the Palace Museum had a live streamed event for 2 days. On March 17, 2020, 180 Chinese museums reopened after a one-month lockdown with the permission of the government and with the coordination of the ministry, museums started requesting people to make online appointments in an effort of crowd control and social distancing. Many museums were also offering digital tour services so people could experience the thrill while safely at home.

If people were lucky enough to secure an appointment, they had to bring their ID and show their green health code at the entrance. Face masks, body temperature checks and social distancing were a must. Still, many Chinese museums practitioners show great concern about the financial implications of the pandemic (Zhang Y. , 2020).

When the National Museum of China reopened in September, it was fully equipped to operate in the pandemic. It had multiple hand hygiene stations, cafés were closed, and only vending machines were available and everyone working or visiting the museum had to wear a mask, maintain social distancing and also get their temperature checked at the door.

This museum used to allow up to 30,000 visitors daily, however, with the new restrictions, it had to cap at 8,000 visitors daily. These too had to be split into groups after getting online appointments. Other than the physical tours, the National Museum of China also invested in digital or online exhibitions of certain segments (Li, 2020).

Similarly, the Palace museum opened its galleries as early as May 2020 since Beijing was doing better in terms of coronavirus cases, initially only allowing 5,000 visitors per day with strict SOPs and health monitoring. The museums carefully monitored the visitors and disease rate in the area and of those visiting to finally increase numbers of visitors daily. From increasing daily visitors to 8,000 in May 2020 to allowing 30,000 visitors in February 2021, the museums used a maintain zero case strategy to slowly allow more visitors daily.

People rejoiced as they were able to leave their homes for recreational purposes after months of lockdown. Both museums tested the water first by gradually increasing the number of visitors and by enforcing strict SOPs.

SECTION 3. IMPROVEMENT OF THE TOURISM IN CHINA FOLLOWING THE COVID-19 PANDEMIC

3.1 Ways to overcome impact of the pandemic on the tourism industry in China.

Due to the COVID-19 pandemic, nearly 90 percent of the museums were temporarily closed, with 13% going of business. This not only resulted in interruptions to the public's ability to view cultural relics, but also represent the permanent loss of an accessible knowledge repository and communicator of information.

However, the current health crisis provides a strong incentive for museums to rapidly implement changes. If they adopt a “wait and see” approach, they are unlikely to continue their roles as repositories of culture and knowledge in the post-pandemic world. As observed by Kahn (2020), “the potential offered by digital to provide rich, layered museum content, which fulfills the science communication role of a museum, and exploits their position as knowledge repositories is extremely exciting”.

The pandemic has prompted museums to adopt the use of digital platforms and mobile apps to get public attention. As stated by Wang Chunfa Di that the National Museum of China gives most consideration to the strategy of online development, expanding cloud resources to attract the public. And that the National Museum of China shall take online exhibition and publicity as the primary approach to stimulate the vitality of Chinese excellent traditional culture.

The first part of this chapter focuses on the results yielded from the research. It presents thematic data obtained from the news articles published on both the (National Museum of China and the Palace Museum). The second part shows the results of the second research question, which are also obtained from News articles analysis and

interviews. The third presents the results of the third research question, which compares the findings through thematic analysis, this section compares the measures taken by The National Museum of China with that of the Palace Museum in light of coronavirus recovery. The fourth section discusses the general impact as discussed in the literature.

This section presents the results that will be analyzed via content thematic analysis of the news articles published on the museums' official websites. Themes that emerged from both museum websites are compared.

The researcher discusses issues identified, described, and analyzed under the following themes.

1. Technological Measures adopted by museums, such as online platforms (i.e., virtual reality displays or online exhibitions, 3D and 5G technology, video conferencing system, digital course and online booking system) and social media (such as WeChat, Weibo and TikTok)
2. Health measures adopted by museums (including enforcement on visitor limit, mandatory body temperature checks, face masks, and limit on opening hours)
3. The similarities and differences in the adoption of technological and health measures by the museums

As validated by Hu, Yan, Casey, & Wu, (2021) sometimes, employees conform to the new norm with a four-stage psychological process. An individuals' commitment to deep compliance usually starts with either increased risk or health awareness. Such an awareness more often than not motivate good behavior adaptation. Prolonged use may increase an individual's self-confidence in the efficacy of the new measures. The

figure below is a summary of the four-step deep compliance to the coronavirus safety measures.

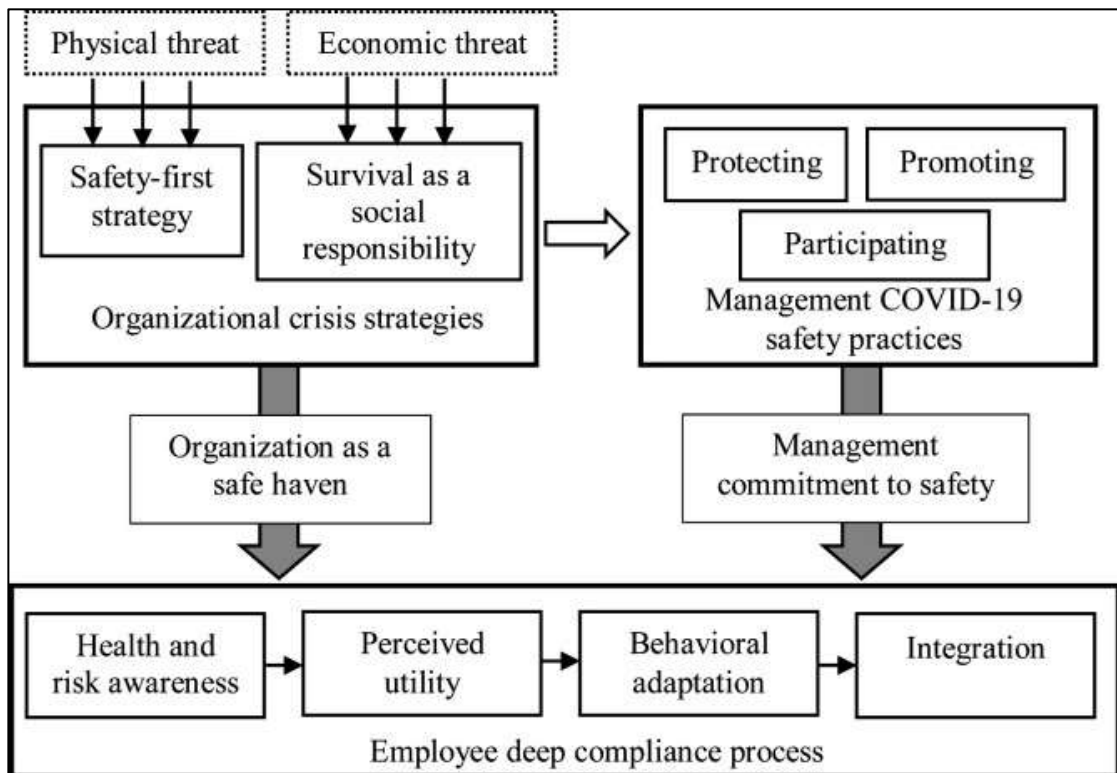


Figure 3.1: Summary of deep compliance with COVID-19 safety measures (Hu, Yan, Casey, & Wu, 2021).

3.2 Rationale for studying the improvement and recovery of the tourism in China.

This research is significant as it will help museums and other sectors of touristic attractions in the development of policies and strategies that are better suited for handling crises. It attempts to converge the existing gap between the tourism management industry and crisis management. Data gathered from this study will contribute to further understanding of crisis management in the tourism industry particularly for museums considering an unprecedented crisis. The findings of this study will help museum owners and practitioners in the tourism industry to draw the lesson from the pandemic crisis by observing the good practice case study example for reference in the future. Museums and the tourism industry shall re-examine their preparedness/readiness levels for future crises by observing lessons learned from this crisis.

For most organization, crisis management is an important element of management. There are special committees in place that are instructed to take over and make sure that all goes smoothly. For a large-scale industry like the tourism industry, the coronavirus is the worse health crises since the Spanish flu due to its magnitude. However, recent research contributions on the impact of coronavirus and recovery of the tourism industry have been mainly conceptual (Hao, Xiao, & Chon, 2020), critical (Gössling, Scott, & Hall, 2020) or empirical studies (Hu, Yan, Casey, & Wu, 2021). The focus has been on the impacts of the pandemic on hotels (Loi, Lei, & Lourenco, 2021), transportation, restaurants, and the employment crisis. There is a need for research on the recovery of the tourism industry as a whole and its associated sectors (Chang, McAleer, & Ramos, 2020). Meanwhile, most of the research on the recovery of the tourism industry has been generalized with a lack of focus on touristic

attractions. to address this gap, this research aims to study how museums in China have taken to sustain their operations during the pandemic and the recovery strategies that they employed to minimize the economic and social impact of the pandemic.

3.3. Effectiveness of the improvement program for the recovery of the tourism industry in China

The first research question explores the technological measures that museums adopted to sustain their operations while recovering from the effects of the coronavirus/pandemic. Here, the researcher examined and analyzed the news articles published on both the National Museum of China and the Palace Museum considering the pandemic. The News articles are presented in a table as shown in (Zhang Y. , 2020).

The National Museum of China made use of different technologies to host exhibitions. For instance, “The Dongfanghong Forever” was the first virtual exhibition hosted by the museum, showcasing China's progress in space exploration over the past 50 years. Which was expected to run for a long time. Due to the pandemic, people at home were also given a chance to explore the exhibition as stated by Chen Keshuang, curator of the exhibition.” For those who are not able to come and admire the exhibits on site, the museum’s virtual reality display offers an exciting alternative”.

The fifth Space Day of China was launched on April 24, 2020, celebrating the 50th Anniversary of the Launch of the Forever Dongfanghong-I Cloud Exhibition sponsored by the National Museum of China and the China Academy of Space Technology jointly marked the first time the National Museum of China used three-dimensional modeling and panoramic roaming, multimedia, 5G communication technology to broadcast live events. Accelerating the museums’ move into the Smart Museum Era.

The National Museum of China introduced over 40 virtual exhibition halls, Virtual spaces, cloud exhibitions, and live broadcasts which can go beyond space and time limits, to allow audiences worldwide a chance to explore museums, enjoy the cultural heritage treasures, explore exquisite

collections, and marvel at the brilliance of various civilizations. These virtual exhibitions designed several hotspot interactive activities in the museums' virtual exhibition hall using cloud exhibition, and included a 5G live tour, immersion experience, in-depth participation, online interaction which support cloud development and resource transformation through media and technology usage. Using these technologies, the National Museum of China blazed a new trail in cultural exhibitions and showcased an intelligent era.

Among the recently provided online exhibitions by the museum is the "Augmented Reality Cultural Relic Treasures" hosted at the museums' website for those individuals at home. People can drag the three-dimensional model of the collection on PC or phone browsers to explore the details from different angles. More so, using virtual reality tours, guided tours live broadcast, the museum has taken further steps in online exhibiting by showcasing its current and permanent exhibitions, uploading audio of previous educational courses, and using social media posts to provide details on the star items in its collection via its official website.

Daily work operations have also been migrated online for instance; February 10, 2020.

The National Museum of China launched a special work meeting via a video conferencing system on the Xuexi Qiangguo app. Which allowed members of the NMC work committee to join the virtual meeting via their mobile phones from wherever they were. Thus, voiding physical contact and risk of pandemic spread while also saving the communication costs and ensuring work progress through the pandemic.

Online events were also introduced for instance; the "Treasure Hunt Relay; Global Museum Directors Choice" online sharing event which showcased cultural treasures to global audiences. This event was done in

cooperation with 15 museums from countries including the UK, Argentina, Russia, and South Africa. The event's purpose was to reduce the impact of the pandemic and for the museum to show its social influence. Wang Chunfa, director of the National Museum of China, stated that. This pandemic has made a great impact on the museum industry. To meet the needs of more people, the National Museum of China launched over 40 virtual exhibition halls and digital courses. This Global Museum Treasure Hunt Relay is our latest project.

This event allowed for interaction with audiences with 50 million watching the watching from china and abroad via the broadcast. Since the event lasted for days, it received over 200 Million participants in total.

Mathew Trinca, Director of the National Museum of Australia, stated that "I think the world has never needed its museums more than it does now... Our museums are important at this time because they sustain our peoples and give them a sense of hope and optimism". This online event fostered international connections among participant countries and museums. As stated by Wang that "Through the event, we have established an important online platform. We hope more and more museums can join us in the future. We will continue to increase the influence of this platform. We are also looking forward to new international cooperation and he added that "For now, we have already established the Silk Road National Museums Alliance, BRICS National Museums Alliance, and Global Museum Directors Forum. We are now working to establish a Shanghai Cooperation Organization National Museums Alliance. I believe we will see more related museum cooperation and communication in the future".

Another online event carried out was the Online voting seven-day event on a cartoon image contest started on October 8, 2020 which got attention from various designers and museum enthusiasts around the

country submit their entries which were reviewed by the NMC. This contest added to the trend of a technological NMC and a digitized museum.

Social Media Platforms have also been utilized by the museum for instance; the museum used its Weibo account to deliver content such as “NMC Cloud Exhibitions” where nearly 60 fine exhibition websites, 40 virtual exhibition halls, and over 50 exhibition videos of the museum content were released to the public. The WeChat and Douyin (TikTok) account provided timely updates to visitors which have been praised highly by the public as stated The National Museum of China satisfies everyone’s taste what a wonderful column and “Thanks to the museum’s media staff for sticking to their posts and guiding us to enjoy the exhibition online. The Museum further launched an English WeChat account (July 31, 2020), the first one aiming at over 5000 Chinese museums to capture communication with the international audience via texts, pictures, videos, and audios. a total of 52 articles in 13 issues were released and welcomed over 2,000 views.

Similarly, the Palace Museum implemented various technological measures to ensure that the daily operations of the museum keep going in the face of the pandemic and to keep the visitors of the museum interested. The next section shall present the technological initiative taken by the Palace Museum.

Online ticket reservation services were offered to the visitors to book tickets via the website (<https://gugong.ktmtech.cn/>) before museum visits to avoid rush at museum entrances for ticket purchases. More so, the museum encouraged visits by providing ticket sales for instance on 29th April 2020 the tickets were sold at 60 Yuan (RMB)

The museum also offered a series of online events via its official website www.dpm.org.cn, such as “New Spring Culture ‘Splendid’ Feast

Area” (Xinchun wenhua ‘jia’ yan), the WeChat applet titled “The Digital Palace Museum” (Shuzi Gugong), and the cultural feast titled “in the cloud”. The museum also referred the visitors to the website for further information and queries.

The museum also offered online classes such as “The Palace Museum Knowledge Classroom” (Gugong zhishi ketang) offered in winter. During this class, learners may explore the various items of the museum provided in the updated online catalogs (“The Digital Storehouse of Cultural Relics” (Shuzi wenwuku), and “The Palace Museum Collection Catalogue”).

The second research question aimed at finding out the health measures which were taken by the two museums used as case studies for this research, to prevent the spread of coronavirus as a standard operating procedure.

The National Museum of China took several health measures to fight against the pandemic for instance; 1st of August 2020, the museum launched a ceremony “Unity is Strength: An Art Exhibition on the Fight against Coronavirus” in collaboration and sponsorship with the National Museum of China, China Artists Association and China Calligraphers Association. This event showcased over 200 pieces (sets) of works against the background of the fight against the Coronavirus epidemic. These exhibitions included traditional Chinese paintings, oil paintings, prints, watercolor paintings, posters, comic strips, sculptures, calligraphy, seal carvings, and handicrafts. Which all portrayed various scenes patient treatment, prevention, and control

Epidemic, medical assistance offered to other countries, daily supplies sent to affected areas, and the resumption of work and production. This exhibition showed the fight and challenges Chinese people

experienced in their fight against the pandemic.

Temporary closures were enforced on the museum to contain the spread of the virus. For instance, the Palace Museum/Forbidden City opened its doors after closure for 100 days. The NMC using IT means as stated above, continued to work during its closure as a response to the central government's pandemic prevention and control plan.

The National Museum of China reopened its door to the public on 30th September 2020, but it had to follow the epidemic prevention and control rules as per the Beijing Municipality as shall be discussed below. The Museum limited its number of daily visitors to 8,000 and broke down the visits into three time periods (2,000 visitors from 9:00 to 10:00; 3,500 visitors from 10:00 to 13:30; 2,500 visitors from 13:30 to 15:30). Wang Chunfa, Director of the NMC stated during an interview that "Since May, we have implemented a series of measures to ensure the safety of our visitors. We had a total of 7.39 million visitors in 2019," and she further said that "But now, even if we increase the visitor flow to 8,000 people per day, we still cannot fully serve all our patrons. So, considering this situation, we've launched this online exhibition and we are working in collaboration with museums overseas. This Global Museum Treasure Hunt Relay is our latest project,"

Visitors are supposed to register with their Chinese ID for locals or passports for foreigners. More so, visitors were required to make reservations in advance online. The visitors were required to go through the disinfection station at the Northwest Entrance for security reasons. Visitors were also subjected to obligatory body temperatures scanning at the entrance before entering the museum. To ensure the health status of the visitors, the museum required that QR health code be presented or (or apply for the Code of the day on the WeChat mini program "北京健康宝 Beijing

Health Kit"), take health monitoring, and enter the museum with no sign of illness. Visitors were advised to contact museum staff immediately if they experienced fever, cough, shortness of breath, or another physical discomfort.

Social distancing was enforced by the museum by requiring 1.5 meters between people. Also, visitors are required to wear masks throughout the visit. To further prevent the spread of the virus, Staff-guided tours are suspended as of 30th September 2020. Ensure that visitors adhere to the health protocols put in place, the museum is working with the public security departments to deal with those who do not cooperate.

The museum visitors generally praised the museums' effort toward the prevention and management of crowds. In one of the visitors' words, "The museum used to admit 30,000 people a day, but now only 3,000 visitors are allowed. So, we want to take this opportunity to better appreciate the exhibition about ancient China," Another visitor said "We've been locked in our house for too long. It's good to come here for a change of perspective".

Considering the pandemic, prevention and control measures have been a priority of The Palace Museum focus by enforcing various health measures to ensure the safety of visitors. The prevention of coronavirus was mentioned approximately 12 times in the news articles published on the museum's website. The next section shall discuss the various health approaches taken by the Palace Museum:

The Museum reopened of the indoor galleries on the 21st of July 2020 since the city of Beijing lowered its public health emergency for epidemic control level from Level II to Level III. The "Treasure Gallery", the Gallery of Clocks, and other indoor spaces were gradually opened but were open to limited numbers of visitors.

The Palace Museum reopened its door on 1st May 2020 but with a limit of 5,000 visitors. This was followed by a series of strict measures to prevent the spread of the virus such as online reservations, health monitoring, and crowd management. The museum only opened some parts, the outdoor areas opened included the three great halls of the Outer Court and three palaces of the Inner Court, the Imperial Garden, the Palace of Compassion and Tranquility (Cining gong), and its garden, Palace of Longevity and Health (Shoukang gong), and certain courtyards of the Six Eastern Palaces and Six Western Palaces. Indoor galleries like; the Treasure Gallery and the Gallery of Clocks, and indoor spaces for museum services will remain closed temporarily; other temporarily closed areas include the tower galleries of the Meridian Gate (Wu men), East Prosperity Gate (Donghua men), Gate of Divine Prowess (Shenwu men), and connecting ramparts.

The Museum limited the daily number of visitors gradually, increasing the numbers as the burden of the pandemic improved in the country.

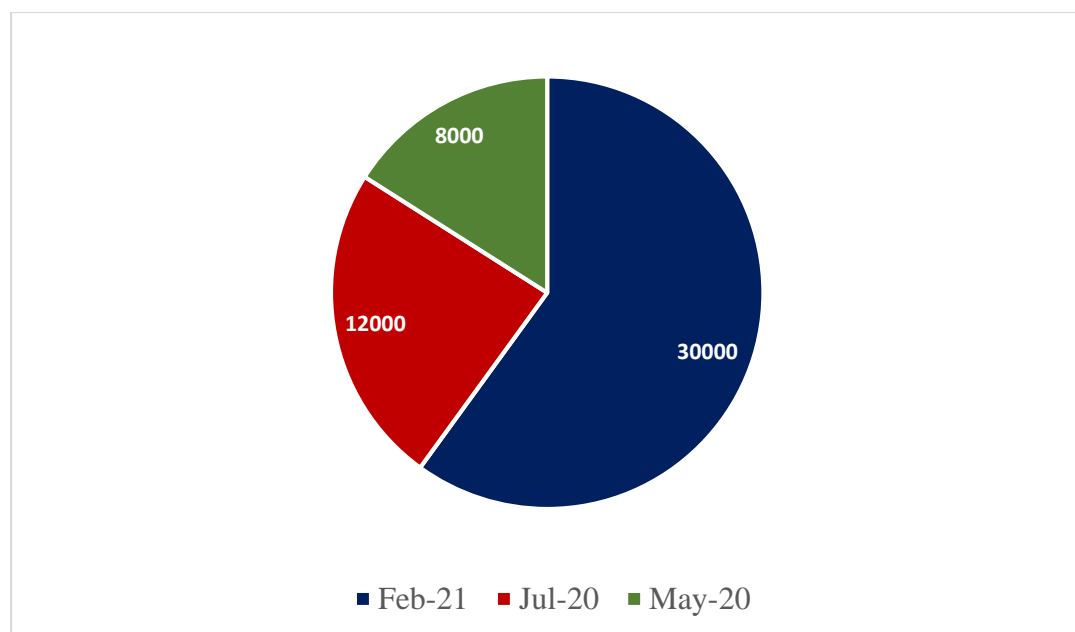


Figure 3.1 Numbers of daily visitors

As shown in the Figure 3.1 above, museum visits were limited with the admission of; 8000, 12000, and 30000 in May 2020, July 2020, and February 2021, respectively. The visits were further divided into two time periods, morning, and evening with a half of the visitors admitted at each time interval. Visitors were further required to present their identifications, ID for the Chinese visitors and passports for international tourists.

The Museum further enforced obligatory temperature scanning at Museum entrance to ensure that visitors are in good health and those visitors with a body temperature above 37.3°C or symptoms associated with COVID-related illness, such as coughing, or shortness of breath were denied entry. Visitors were further urged to immediately contact staff if they experienced any discomfort or COVID-19 symptom. They were further urged to comply with the emergency response plan. QR health codes (via Health Kit, a.k.a. Jiankang Bao, available through WeChat and Alipay mini programs) that show no signs of abnormality.

The visitors were also required to always wear a face mask at museum grounds as well as maintaining a safe distance from one another and avoiding huge crowds as means of avoiding the spread of the coronavirus. Visitors were required also to present original ID (passports for international tourists). More so, guided services were temporarily put on hold to avoid the spread of the virus. However rental services for audio guides, wheelchair, and baby carriages are available for free.

Generally, the National Museum of China implemented more technological tools as compared to the Palace Museum, as shown in the coding frames below.

The National Museum of China focused on providing those stuck at home with an opportunity to entertain themselves. They opted for maximum indulgence of technology that proved to be helpful in sustaining the museum financially during the pandemic. Details of all the changes adopted by the museum are enlisted in the table below.

The National Museum of China Coding Frame

<i>Technology Measures</i>	<i>Health Measures</i>
Use of digital platforms Virtual reality displays (4) Use of 3D and 5G technology (6) The offering of the online exhibition (11) Cloud live broadcast (5) online activities (5) Video conferencing system Online office work system Digital course (2) Online booking system Relay format Social media Use WeChat account (3) Weibo TikTok	Reopening of Museums (2) Closure of Museums (4) Enforcement on visitor limit Checking body temperature Presenting QR health code (2) Crowd management (4) Disinfection station The obligatory wearing of face masks (2) Presence of emergency response plan Stay at home rules. Limit of daily visitor arrivals (2) Limit on opening hours Cancellation of evening visits temporarily Visits are broken down into three periods. Health monitoring Suspension on staff-guided tours

Table 3.1: Initial Coding of the National Museum of China

The Palace Museum wanted to provide an opportunity to those stuck at home with something to do during this pandemic. They not only implemented technology but also hosted online events to be more inclusive. Details of all the changes adopted by the museum are enlisted in the table below.

The Palace Museum Coding Frame

<i>Technology Measures</i>	<i>Health Measures</i>
Online ticketing service for reservation of tickets (6)	Epidemic prevention and control measures (12)
Visiting information available on the website (2)	Limiting the number of daily visitors (10)
Online events	Breaking visitation periods in two
WeChat Applet	Obligatory presentation of QR health codes at Museum entrance (5)
Online classroom	Compulsory temperature scanning at museum entrance (5)
Ticket sales	Obligatory facemask wearing (3)
	Maintain Social distancing/crowd density control (6)
	Temporary closure for maintenance
	Reopening of the museum indoor gallery
	Enforcing visiting-time intervals (2)
	Presentation of identification (3)
	Reopening of the museum (2)
	Temporary halt on guided services
	Closure of museum temporarily
	Temporary closure of the city walls
	Full day closure of the museum
	Closure of some areas of the museum

Table 3.2: Initial Coding of the Palace Museum

While there is a slight difference in the number of technological tools used by both museums, there is a general approach to online exhibitions and virtual tours which have been taken by both museums to enable their stay-at-home audiences to still enjoy the museums' work from home.

Generally, both the National Museum of China and the Palace museum implemented similar health preventative measures to avoid the spread of coronavirus among their visitors. These precautions have generally revolved around; social distancing, crowd management, temperature scanning, and live QR health codes presentation by visitors

during their time at both museums.

Based on the findings, this thesis not only emphasizes the need for museums to digitization, but it also shows that it is practical and possible. As observed earlier, the use of digital health screening tools allowed for museums to safely open to an increasingly large number of visitors, it also allowed for increased accessibility to knowledge and content through digital platforms. This is only possible through appropriate investments in information and communication technologies.

Further, the findings also indicate that museums must develop procedures for crisis preparedness. The current health crisis mandates social distancing, crowd control, and hand hygiene. Again, digital tools can aid in reducing crowd (such as online ticket reservation and purchases), as well as appropriate spending on hand hygiene stations etc.

Finally, the findings indicate the need for collaborative efforts, and \ human resource development.

CONCLUSION

The conclusion will summarize all the findings based on the objectives set at the start of the study and the hypotheses. The study focuses on the recovery of the tourism industry especially highlighting two museums in Beijing, China. The study attempted to answer the following predetermined **research questions**:

What technological means have museums taken towards sustenance and recovery of operations considering coronavirus?

The key findings from this research question are that technology plays a very important in times of crisis, especially in the tourism industry. While most travel and mobility were restricted, hosting virtual events kept the business afloat and gave citizens a sense of safety and security.

What are health measures have been taken by the museums considering coronavirus to maintain operations?

The safety and health of organization stakeholders are very important, especially in times of crisis. Museums took stringent approaches towards the protection of the health and safety of their visitors, by making it the one priority above all else. These include installation hand washing stations, availability of hand hygiene facilities, signage and implementing social distancing by limiting access at any given moment.

Are there differences in approach by museums to recovery considering coronavirus?

Generally, the approaches to recovery were similar but the difference was observed in the tools used in the recovery process. The National Museum of China used more technology than The Palace Museum. This increased their reach to people. They also had more celebrations that engaged more audiences.

What lessons can museums learn from the coronavirus crisis for future crisis prevention?

The management of museums like other segments of tourism should remain open to change. They must be equipped with the latest equipment to give a true digitalized museum experience. They must be active on social media and engage greater audiences from around the globe through online sessions.

Technology

The coronavirus crisis pushed museums to adopt various technological tools for sustenance and ensure that they recover from the impact of the pandemic. Traditionally, museums depend on visitors' entry tickets for revenue and the closure of most establishments during the pandemic made it difficult for some museums to operate. The lockdown measures imposed by the Chinese government on movement to control the spread of the virus affected not only people's social lives but the livelihood of museums. This is a lesson for museums to invest in technology and utilize it to prepare for any future unprecedented crises. The power of technology through the use of virtual tours, online exhibitions, social media videos among other have quickened the recovery process for museums that invested and adopted technology since they were able to rebrand themselves as smart and technology adaptive brands to capture their audiences.

Investment in technology should be included in the museums' organizational budgets to enhance their adoption of technology.

Health

The safety and health of organization stakeholders must be given priority above all else. Museums did this by ensuring stringent health precautions among their staff members and visitors. This implies that

museums just like other organizations should be keen attention to the health of their staff by providing an incentive such as health insurance among incentives in case of future crises.

Human Resource Development

There is a huge investment of human resource development. Museums must invest in re-educating their staff about crisis management as well as provide workshops or seminars on technology use. This shall put them an advantage shall there arise a need to use technology in a crisis in the future.

This study has been mainly qualitative, to further explore this phenomenon, quantitative research could be conducted to further investigate the perceptions of the museum administrators on the pandemic and their views on technology and how it has helped them cope with and recover from the coronavirus crisis.

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