

GREECE HEALTH PROTOCOL DURING COVID-19

Khemtis Salamat¹, Supawit Sangdararat², Kavin Chiajirasin^{3*}, Naphat Kanjanaphan⁴

Abstract

Since 2020, tourism has been extremely affected by COVID-19, forcing many tourist destinations to make significant adjustments in order to pass through this tough time. COVID-19 has spread all around the world, including the island of Santorini, a popular tourist destination. Santorini has been heavily affected, as its main sources of income are driven by tourism businesses. The explicit lack of the main income led to the creation and issuance of Greece's COVID-19 protocol for traveling named the "Protocol for Arrivals in and Departures from Greece". The implementation of this protocol in Greece was found to be interesting in consideration of the impacts of COVID-19 on tourism, leading to the development of the objectives for this study: to analyze the effectiveness of the protocol for safely increasing the number of travelers to Santorini. This research uses a regression model to investigate the three different situations on Santorini Island, and determine the impacts of the protocol, namely "Before the COVID-19 incident", "Before the launch protocol of COVID-19", and "After the launch protocol of COVID-19". A SWOT analysis was also used to provide an analysis of the protocol itself. The results express that the main threats in relation to the health protocol are new covid-19 variants. After running regression, the outcomes of the analysis show that before COVID-19, Santorini was following an uptrend for travel. However, at the start of the COVID-19 incident, Greece was alerted and made an announcement to lockdown the country until the number of cases and deaths decreased. Once people began to travel, the government enacted the protocol to protect its tourist industries. In the fact, after the protocol was launched, it may not have had much success. Therefore, the implication of the policy suggests that the country should set the policy not only for protecting its industries, but also providing a shield for the local people against COVID-19, to minimize opportunity-cost including provision of knowledge sharing explicitly regarding COVID-19 which, like its relative the flu, is a threat that no one can escape from.

Keywords: Traveling, Covid-19, Greece, Santorini, Protocol, Tourism industry.

1. INTRODUCTION

People wish to travel around the world and are willing to pay for great experiences when visiting other countries. Tourism is one of the key sectors driving increases in the

GDP of many countries, generating both income and employment opportunities. Greece is a famous country with attractive scenery and many locations which tourists want to visit. The island that travelers want to visit most is "Santorini". The rapid spread of

¹ Khemits Salamat is currently studying for a bachelor's degree in economics at the Faculty of Economics, Srinakharinwirot University, Thailand.

²Supawit Sangdararat is currently studying for a bachelor's degree in economics at the Faculty of Economics, Srinakharinwirot University, Thailand.

^{3,*}Kavin Chiajirasin (corresponding author) is currently studying for a bachelor's degree in economics at the Faculty of Economics, Srinakharinwirot University, Thailand. Email: kavin.chiajirasin@g.swu.ac.th

⁴Naphat kanjanaphan is currently studying for a bachelor's degree in economics at the Faculty of Economics, Srinakharinwirot University, Thailand.

covid-19 around the world inevitably made even famous places stop running their businesses due to the lock-down of countries. Such lock-downs included Greece, whose government tried to create a health protocol to generate confidence among travelers. As Thailand is another tourism country which faced the COVID-19 pandemic, it is interesting and valuable to study another country equally reliant on the tourism industry, to learn about how they adjusted during the pandemic period and whether their health protocol was effective during the pandemic. Accordingly, it is hoped that after studying another country, it will be possible for Thailand to adapt its organizations and policies in line with that country wherever they are deemed useful and appropriate. The government of Greece introduced a health protocol to ensure the safety of tourists. Greece was one of the first countries to implement strict rules to prevent the spread of the virus and monitor their people during the pandemic (Santorini-view, 2021). Greece also provided a vaccine for their citizens, in order to prevent further spread of COVID-19 at the end of 2020 (Santorini-view, 2021). From the economic perspective, when the policy was enacted, the government, who had observed the impact of social problems caused by the pandemic, became the key player in attempting to manage and operate the situation via various control measures. In Greece, the protocol was called the "Protocol for Arrivals in and Departures from Greece". According to the policy announcement, it was doubted whether the policy would be effective. The objective of this study was to analyze Greece's COVID-19 protocol to determine the efficiency of the protocol, illustrating the results regarding both travelers and the local population in Santorini.

2. LITERATURE

Background theory is required for guiding the methodology in this kind of study. Accordingly, a literature review was conducted, consisting of five areas of theories deemed relevant for guidance. These were

Qualitative Methods, and Analytic Induction as the main theory of focus, as well as Content analysis, Primary Data, and SWOT Analysis.

Linear regression is an approach to modeling the relationship between explanatory variables and a scalar response. If only one variable is used in the regression it is known as linear regression, while when more than one variable is used, it is referred to as multiple linear regression. Linear regression is distinct from multiple linear regression, where multiple correlated dependent variables are predicted, rather than a single scalar variable.

Qualitative methods are defined as market research methods which rely on open-ended and conversational dialogue to gather information. Such methods can gather information, not only about "what" people believe, but also "why". If we consider the example of a convenience store, in which according to systematic observation, the percentage of men entering this shop is higher. In this case, conducting an in-depth interview with prospective buyers in the group is a smart way to figure out why women weren't entering the shop. Accordingly, a qualitative method consisting of content analysis, analytic induction, and primary data is appropriate (Questionpro, 2021).

Content analysis is a testing technique for identifying the existence of specific terms, topics, or ideas in qualitative results. Researchers may measure and interpret the existence, interpretations, and associations of specific phrases, themes, or ideas, using content analysis. Researchers may assess the vocabulary used in a news story to look for bias or partiality. Sources of data could be from interviews, open-ended questions, field research notes, conversations, or any other occurrence of communicative language, for example books, essays, discussions, newspaper headlines, speeches, media, and historical documents. Content analysis can be used to interpret language. Once the text has been coded into code categories, the codes can be further classified into "code categories" to further summarize results. Use of Content Analysis for determining an

individual's, group's, or institution's intentions, attention, or contact patterns, describe how people respond to messages in terms of their attitudes and behaviors, determine a person's or a group's psychological or emotional status, and can identify gaps in communication content between countries. Patterns in contact material should be shown, until launching an initiative or survey, evaluating and developing it, in order to complement quantitative data with focus group interviews and open-ended questions (publichealth.columbia, 2020).

Analytic induction (AI) is a research logic used to direct data collection, create interpretations, and coordinate the presentation of research findings. AI's approach is entirely qualitative, including searching out different types of data in order to force revisions that will make the analysis more accurate when applied to a growing number of cases. Initially conceived as a substitute for statistical sampling methods, AI is now mainly used to establish descriptions of the interactional mechanisms by which people develop what they perceive to be homogeneous types of distinctive social action. Along recurring lines, Analytic Induction transforms and creates a sociological appreciation of phenomena. Explanatory conditions are redefined to determine the experiences by which individuals, through studying, understanding, or being aware of features of their biographies and circumstances, effectively set up their own motivational dynamics (J. Katz, 2001).

Primary data refers to the information gathered by a researcher from first-hand sources and analyzed using specific methods. Examples of primary data include creative works, such as paintings, movie reels, and music; diaries and journals; experiments performed by the researcher; letters; surveys and censuses; and interviews. A primary source is one that is gathered directly from the source. It is not tainted by the opinions or decisions of others. (Statisticshowto, 2021).

SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis is a method usually used by companies to evaluate their competitive position and design strategic actions for improvement. Internal and external variables, as well as present and future prospects, are all analyzed in a SWOT analysis. A SWOT analysis is designed to facilitate a realistic, fact-based, data-driven picture of the organization's, initiative's, or industry's strengths and weaknesses. The company must maintain the accuracy of the study by eliminating preconceived notions or grey areas and instead concentrate on real-world scenarios. This should be seen as a reference rather than a prescription for businesses. Using both internal and external data, the technique steers companies into more successful strategies and away from those that have been or are likely to be less successful. They may also receive advice from an independently conducted SWOT analysis, investors, or competitors, on whether an organization, product line, or industry is strong or poor, and why.

A SWOT analysis is usually depicted within a square divided into four equal areas, each representing one of the four factors of the analysis. Strengths represent what a business excels at and how it differentiates itself from the competition. A strong brand, a loyal customer base, a healthy balance sheet, and cutting-edge technology are all assets. Weaknesses refer to the factors preventing a company from reaching its full potential. The areas that the company must develop in order to remain successful. Opportunities represent favorable external factors that could provide the organization a competitive advantage. Threats represent factors that have the potential to harm the organization.

Empirical Review

The following tables represent an empirical review of the 15 pieces of literature identified in internet resources and deemed most appropriate for this project.

| Author/Year | Paper Name | Objective | Methodology | Result |
|---|---|---|--|---|
| 1. Mekonnen Hailemariam Zikargae / 2020 | “COVID-19 in Ethiopia: Assessment of How the Ethiopian Government has Executed Administrative Actions and Managed Risk Communications and Community Engagement” | The objective of this study was to investigate the status-quo of the COVID-19 response in Ethiopia | - A qualitative descriptive approach more specifically qualitative case study was used to examine the local context in Ethiopia which was allied to the global approaches. -The author used web-based search terms including “COVID-19”, “COVID-19 responses and preparedness in Ethiopia”, “early response to COVID-19 in Ethiopia”, “COVID-19 public health measures in Ethiopia”, “COVID-19 epidemiological characteristics”, “worldometer”, “Ethiopia during the pandemic”, and “factors affecting COVID-19 response in Ethiopia”. Thus, web information retrieval systems were used as a framework for this study. | -The study found that governmental efforts were insufficient to reduce the spread of the virus. The author also claims that the government should pay attention to high-risk and vulnerable groups to enhance their implementations. -The government should revise and strengthen policy implementation efforts to mobilize and improve the knowledge, attitudes and perceptions of the public through different channels of media reporting, consolidating the importance of social, economic, political, and cultural factors. |
| 2. Arshed Noman, Saeed Meo Muhammad, Farooq Fatima / 2020 | “Empirical assessment of government policies and flattening of the COVID19 curve” | -Estimation of the 2019 COVID-19 flattening curve using the Panel Random Coefficient Model -Calculates the expected number of days to reach the flattening point on the COVID- | This study estimates the Panel Random Coefficient Model with the natural log of confirmed cases and quadratic function of the number of days since the first case as an independent variable. The Panel Random Coefficients Model used, allows for country-specific slope coefficients | -The most effective strategy were found to be contact tracing, international movement restriction, stay at home restrictions, work closure and information campaigns, in decreasing order of effectiveness -WHO and the local government should |

| Author/Year | Paper Name | Objective | Methodology | Result |
|--|---|--|---|---|
| | | 19 curve and estimates the empirical effectiveness of government policies around the world using Poisson regression. | while constituting homogeneous residuals. | invest in the rigorous implementation of contact tracing mechanisms. This will help in minimizing the spread of possibly lethal viral infections. |
| 3.Oppah Kuguyo, Andre Pascal Kengne, and Collet Dandara/ 2020 | Singapore COVID-19 Pandemic Response as a Successful Model Framework for Low-Resource Health Care Settings in Africa? | Analyzes how Singapore has responded to the COVID-19 pandemic and proposes that adaptations of the Singapore pandemic response model would bode well for Africa's response to the COVID-19 pandemic in ways that also take into account regional differences in health care infrastructure, socioeconomic resilience, poverty, and the vast population diversity in the African continent. | -The first line of defense was to reduce importation of the disease, namely by conducting temperature screening at ports of entry. In the beginning, the screening and decision making thereafter, in most countries, was poorly managed, without serious follow-up on travelers presenting with high temperatures. In addition, Singapore distributed masks for each household to be worn in case of asymptomatic SARS-CoV-2-positive individuals so as to protect the people around them. | It is imperative that Africa establishes and supports a disaster response/management toolkit for scale and surge capacities in-country and continent-wide pandemic responses, as well as coordinated responses to benefit its integrated and connected peoples. |
| 4.Michel Bielecki, Dipti Patel, Jochen Hinkelbein, Matthieu Komorowski, John Kester, Shahul Ebrahim, Alfonso J Rodriguez-Morales, Ziad | Air travel and COVID-19 prevention in the pandemic and peri-pandemic period | Research and systematic review are indicated to provide evidence of the utility of preventive measures and to help answer the question "is it safe to fly?". | Topics related to air-travel in the pandemic period were divided, and a rapid narrative review was conducted on each of the assigned sub-topics. For the identification of relevant publications, a | -A combined approach of telemedicine and facilities at airports performing both systematic rapid testing, possibly a combination of saliva and antigen could be a viable future strategy at airports |

| Author/Year | Paper Name | Objective | Methodology | Result |
|--|--|---|---|--|
| Memes, and Patricia Schlagenhauf/ 2020 | | | standardized search strategy was used. IATA, flightradar24, and Forwardkeys were sources of information on air transport volumes. Official websites were checked, and an airline survey was conducted via email, or contacting airlines via social media to evaluate the pre-flight and in-flight measures, precautions, and recommendations adopted by airlines. | -Saliva testing might thus be the best way to reduce the number of people who are required to quarantine after arrival. Hand hygiene and physical distancing from the point of entering the airport until leaving the airport as well as continuous face coverings are key elements of preventing SARS-CoV-2 transmission. |
| 5. S H T, Kumudumali/ 2020 | Impact of COVID-19 on Tourism Industry: Review | The main objective of this study was to determine the impact of the COVID-19 outbreak on the global tourism industry. | Secondary data were used for analysis. As the first step of the secondary research, the study developed a research question; "What is the impact of the COVID-19 outbreak on the tourism industry in the world?" The researchers then detected, evaluated, and prepared a conclusion from the secondary data set. The study mainly used reviews, journal articles, and reports from WTCC, 2020; UNWTO, 2020a, 2020b; UNCTAD, 2020 and the World Bank, 2020. Further, news articles and web pages were referred to, to collect the secondary sources of data | Decline of tourist arrivals and tourist revenue in the world and regions in the world in 2020. The study also further evaluated a sudden decrease in the air travel industry, hotel industry, and employment. Thus, it can be concluded that the COVID-19 pandemic era hit the tourism sector hard. The study conclusion has more limitations than other studies because of the limited data available regarding the COVID-19 outbreak. Besides this, the outbreak is still within society creating severe health and economic problems across the world. This study is to be continued in the future with the availability of greater statistical data to the |

| Author/Year | Paper Name | Objective | Methodology | Result |
|---|---|---|---|--|
| | | | | researcher. |
| 6.Jordan Liz/2021 | COVID-19, immunoprivilege and structural inequalities. | - To show immunoprivilege and structural inequalities of immunity passports | -An academic survey showed support for immunity passports because they may be useful for restoring a sense of normality to many individuals. | -The benefits of the immunoprivileged extend beyond the present pandemic. By and large members of marginalized groups are disproportionately more likely to suffer higher rates of chronic illnesses, higher mortality rates and have less access to healthcare (Haynes et al. 2020). As such, regardless of whether or not the US grants immunity passports, immunoprivilege is already present within the US. One’s ability to live a long and healthy life is neither a guarantee nor are the chances equal across demographics |
| 7.Gagan Deep Sharma,Asha Thomas, and Justin Paulc/2020. | Reviving tourism industry post-COVID-19: A resilience-based framework | To suggest a policy framework that enables market players and governments worldwide to cope with the challenges emerging for the global tourism industry from the outbreak of the pandemic. | Records were searched employing the Web of Science database. The usage of this database ensures a consistent standard for the articles used. Using keywords such as “COVID-19,” “tourism,” “hospitality,” and “coronavirus,” 47 records were found. Since the problem of COVID-19 pertains to 2020, the records are fewer in number. Nevertheless, given the mandate of the WHO for rapid reviews, we consider it worthwhile to conduct a review in | Propose a resilience-based framework for the industry. Through our framework, we argue that with the help of the resilient approach from governments, market players, technology innovators, and the workforce employed in the industry, the tourism sector may end up evolving in a much more sustainable way post-pandemic. The involvement of local communities is going to be immensely critical in this journey, as the restrictions on international travel may stay longer than |

| Author/Year | Paper Name | Objective | Methodology | Result |
|--|-----------------------------|---|--|--|
| | | | <p>this pivotal field. These records were then screened through titles and abstracts. It was discovered that 37 papers fell within our theme, while the remaining 10 did not. These 37 papers were selected for further analysis.</p> | <p>anticipated. Such developments would widen not only the base of the tourism industry but also present opportunities for less-developed tourism spots to grow further. Large-scale tourism players would need a reboot to survive in post-pandemic times. Still, acting in line with our resilience-based framework, small-scale players certainly can emerge victorious and ensure the well-being of the society at large while also facilitating sustainable tourism.</p> |
| <p>8.Badri Narayanan Gopalakrishnan, Ralf Peters and David Vanzetti/2020</p> | <p>COVID-19 AND TOURISM</p> | <p>This paper focuses on the potential economic effects of the halt of tourism, in the short and medium term, in both the major tourist destinations as well as in those countries highly dependent on tourism.</p> | <p>Computable general equilibrium (CGE) models capture intersectoral relationships as specified in input-output tables, which show the inputs used in production in each sector. CGE models also link countries through bilateral trade in goods and services.</p> | <p>-In the short term, protecting people and maintaining a healthy tourism industry can be important and appropriate for social protection, often preventing the worst effects of any type of shock, including the COVID-19 pandemic. Casual and self-employed workers are common in tourism related sectors and should be helped wherever possible. Governments should protect workers. Where some enterprises are unlikely to recover, wage subsidies should be designed to help workers move to new industries.</p> |

| Author/Year | Paper Name | Objective | Methodology | Result |
|---|--|---|--|---|
| | | | | -In the long run, the WTTC anticipates that the international tourism sector will likely return to pre-pandemic levels within a 19-month period. Depending on the duration of the pandemic and the measures to contain it, the model presents the effects in three time periods – from a 33 per cent to 100 percent reduction in annual tourism spending. |
| 9. Yan Hong, Gangwei Cai, OrcID, Zhoujin Mo, Weijun Gao, Lei Xu, Yuanxing Jiang and Jinming Jiang/ 2020 | The Impact of COVID-19 on Tourist Satisfaction with B&B in Zhejiang, China: An Importance-Performance Analysis | This study attempted to fill a gap in the literature by studying the changing tourist satisfaction levels with B&Bs before/after COVID-19. Moreover, some suggestions are given to the B&B industry for tourism resumption after COVID-19 using an importance-performance analysis (IPA). | This study was carried out to measure the intervening influence of B&Bs before/after COVID-19 on its relationship with tourist satisfaction. WeChat was used for the distribution of an online survey in Zhejiang, China, receiving 1120 responses to the questionnaire. | The priority suggestions in this paper will be of great help to improve the attraction of B&Bs to tourists after Covid-19. These measures were not given sufficient attention before the outbreak and must be a key focus for B&Bs after the COVID-19 pandemic. |
| 10. Mohammad Reza Farzanegan, Hassan F. Gholipour, Mehdi Feizi, Robin Nunkoo4, Amir Eslami | International Tourism and Outbreak of Coronavirus (COVID-19): A Cross-Country Analysis | This study examines the relationship between international tourism and COVID-19 cases. | A cross-country regression analysis was used to find a positive correlation between international tourism and the cumulated level. The researchers | Using data from a sample of more than 90 countries and applying multiple regression analysis, this study found a positive and significant association between the past |

| Author/Year | Paper Name | Objective | Methodology | Result |
|-------------------------|---|---|---|--|
| Andargoli/ 2020 | | | hypothesize that countries with higher flows of inbound and outbound international tourists have higher levels of COVID-19 outbreak, ceteris paribus. | records of international tourism and the current cumulative numbers of confirmed cases and deaths resulting from COVID-19. The findings suggest that more controls are needed on the health aspects of the tourism industry and accountability of the main players of this industry with respect to health and safety standards. |
| 11.Jane STACEY/ 2020 | Rebuilding tourism for the future: COVID-19 policy responses and recovery | Key policy priorities include -Restoring traveler confidence -Supporting tourism businesses to adapt and survive -Promoting domestic tourism and supporting safe return of international tourism -Providing clear information to travelers and businesses, and limiting uncertainty -Evolving response measures to maintain capacity in the sector and address gaps in support -Strengthening cooperation | Forecasts for tourism performance and recovery: selected country examples | Potential long lasting tourism policy implications: initial country views -Sustainability -Domestic tourism -Traveler confidence -Traveler behavior -Safety and hygiene -Structural change in tourism supply -Skill shortages -Reduced investment -Digitalization -Tourism policy |

| Author/Year | Paper Name | Objective | Methodology | Result |
|--|--|--|---|--|
| | | within and between countries -Building more resilient, sustainable tourism | | |
| 12. Dr. Renu Malra / 2021 | Impact of COVID-19 on Tourism Industry | The paper focuses on the study of the effects of closure of country borders for visitors and tourists in the tourism industry worldwide due to COVID-19. | This research paper provides the outcomes of an analysis of secondary data in the form of statistical data and reports of various national and international tourism agencies. | To revive tourism successfully, governments, together with travel and tourism sectors should prepare phased tourism recovery plans. During the recovery phase, governments must rebuild tourist confidence and encourage innovation and investment for a resilient and sustainable tourism sector. |
| 13.Nina dos Santos, Antonia Mortensen and Susanne Gargiulo, / 2021 | Covid passports could deliver a 'summer of joy,' Denmark hopes | Denmark is a nation that deals with and trades with the rest of the world. Denmark lives off interactions with the world, so that a pandemic such as COVID-19 can potentially stop a society like the Danish. This study was designed to be an international project, where interaction with other countries was possible. However, the study was begun in Denmark in order to show that this can be | With a strong digital culture, Denmark could be the perfect testing ground for this new technology. However, not everyone welcomes the concept, and there are fears it could create a two-tier society that disadvantages the unvaccinated. | After failing to successfully and effectively procure and implement coronavirus vaccines, the EU's next crisis could center upon how to standardize immunization records to safeguard the most central of the bloc's principles: the Schengen agreement on freedom of movement. If each country takes a different approach on whether to adopt a Covid-19 passport and chooses different systems, things could quickly become chaotic. |

| Author/Year | Paper Name | Objective | Methodology | Result |
|--|--|---|--|---|
| | | done -- mobility in the country but also outside. | | |
| 14. Paul Karp / 2021 | Two Coalition MPs urge further bailouts for Australia's Covid-hit tourism industry | Warren Entsch and Llew O'Brien argue domestic holidaymakers cannot fill the void left by barred international travelers | The department noted 84% of domestic flights in 2019 were for overnight trips, half of which were for business, meaning that the industry was vulnerable to a structural shift away from in-person to remote business meetings. Aviation demand could also be held back by lower income and fears of Covid-19 transmission | The Tourism and Transport forum has also called for an extension of the JobKeeper payment scheme, warning that according to modelling by the Stafford Strategy the tourism industry could lose 320,000 jobs by September 2021 without further wage subsidies. |
| 15. Philip Oltermann / 2020 | Hundreds of UK tourists flee Covid quarantine in Swiss ski resort | Hundreds of British tourists fled the upmarket Swiss ski resort of Verbier in a "cloak-and-dagger operation" this week, breaking quarantine rules retroactively put in place to contain the spread of the coronavirus variant first discovered in the UK. | Following the detection of the new mutation of Covid-19 in Britain, Swiss authorities announced on 21 December that all people who had arrived from the UK since 14 December would be required to self-isolate for 10 days from their date of arrival. | The new quarantine rules also applied to hundreds of British tourists who had planned to spend the Christmas break in Verbier, an alpine village located in the municipality of Bagnes in Canton du Valais, nicknamed "Little London" by locals for the British visitors who make up 20% of tourists during a typical winter season. Swiss authorities managed to track down 420 visitors from the UK, who were told to enter quarantine. |
| 16. Elizabeth M Westrupp, Gery Karantzas, Jacqui A | Study protocol for the COVID-19 Pandemic Adjustment Survey (CPAS): | -provide timely information on the mental health impacts of the emerging | -The study aimed to recruit a representative sample of at least 2,000 adults aged 18 | -The study will employ post stratification weights to address differences between the final |

| Author/Year | Paper Name | Objective | Methodology | Result |
|---|--|--|---|--|
| Macdonald, Lisa Olive, George Youssef, Christopher J Greenwood, Emma Sciberras, Matthew Fuller Tyszkiewicz, Subhadra Evans, Antonina Mikocka-Walus, Mathew Ling, Robert Cummins, Delyse Hutchinson, Glenn Melvin, Julian W Fernando, Sa mantha Teague, Amanda G Wood, John W Toumbourou, Tomer Berkowitz, Jake Linardon, Peter G. Enticott, Mark A. Stokes, Jane McGillivray, Craig A Olsson/2020 | A longitudinal study of Australian parents of a child 0-18 years | COVID-19 crisis in a representative sample of Australian parents and children (0-18 years old) -identify adults and families most at risk of poor mental health outcomes -identify factors to target through clinical and public health intervention to reduce risk. Specifically, this study investigated the extent to which the COVID-19 pandemic is associated with increased risk for parents' mental health, lower wellbeing, loneliness, and alcohol use; as well as the quality of parent-parent and parent-child relationships (both verbal and physical); and child and adolescent mental health problems. | years and over, living in Australia who are parents of a child 0-4 years (early childhood, N=400); 5-12 years (primary school N=800); and 13-18 years (secondary school, N=800). The design consists of a longitudinal cohort study using an online recruitment methodology. Participants were invited to complete an online baseline self-report survey (20 minutes) followed by a series of shorter online surveys (10 minutes) scheduled every two weeks for the duration of the COVID-19 pandemic (estimated to be 14 surveys over 6 months). | sample and the national population in geographic communities across Australia. Associations were analyzed using multilevel modeling with time-variant and time-invariant predictors of change in trajectory over the testing period. |

From the data identified above, there are several topics related to the research objectives of this study. The first paper is “COVID-19 in Ethiopia: Assessment of How the Ethiopian Government has Executed Administrative Actions and Managed Risk

Communications and Community Engagement”, using a qualitative method to analyze content as in this research paper. The second article, titled “Impact of COVID-19 on the Tourism Industry” uses the same statistical tools as this research. Lastly, the article “Study protocol for the COVID-19 Pandemic Adjustment Survey (CPAS): A longitudinal study of Australian parents of a child 0-18 years” uses surveys in the collection of data. As a result, these 3 research papers can be applied in the methodology of the current study, whereby a comparison can be made between the method used in this study and the methods used in these 3 research papers from the empirical review. These methods can then be used to form a tool to analyze the protocol for arrivals in and departures from Greece.

3. METHODOLOGY

This research study involves an analysis of Greece's COVID-19 protocol for travel in Santorini. This paper uses content analysis as the main theory for achieving the objective through qualitative methods, and SWOT analysis. The qualitative method is used to collect and analyze contextual data, in order to understand the concept, opinions, or experiences of the context. The qualitative method starts from preparing and organizing data followed by reviewing and exploring data, developing a data coding system, assigning code to the data, and identifying recurring themes, respectively.

The protocol used in this research is the Protocol for Arrivals and Departures from

Greece. This protocol mainly focuses on protecting Greece from COVID-19. Under this protocol, any foreigner traveling to Greece will be required to have a negative test result (by PCR). The certificate must be as up to date as possible, and the associated test may be conducted up to 72 hours before travel to Greece. The laboratory providing the certificate must be one of three specified laboratories, namely a National Reference laboratory, a National Public Health Laboratory, or a private laboratory accredited by its respective national accreditation authority. The certificate must be written in English with the individual identified using their full name as it appears in their passport, or the national ID number of the traveler. When the traveler arrives in Greece, the traveler must self-isolate for 7 days at home or in a temporary residence (Hellenic Republic General Secretariat for Civil Protection, 2021).

To analyze the situation within Greece, this research used a regression model to explain three situations. Specifically, these are before COVID-19, before the launch of the COVID-19 protocol, and after the launch of the COVID-19 protocol. For the first situation, which is in the past, when COVID-19 was not yet known, the number of tourists in Greece, and the travel and tourism to GDP (% of GDP) for Greece, are used as indicators of the situation. Data from 2015-2019, as shown in Figure 1, were used to calculate the regression model to see whether the number of tourists is a factor responsible for the increase in the GDP of Greece (Knoema, 2021).

| Before COVID-19 | Number of tourist in Greece | Travel and tourism to GDP (% of GDP) for Greece |
|-----------------|-----------------------------|---|
| 2015 | 356,443 | 19.2 |
| 2016 | 389,817 | 19.1 |
| 2017 | 431,183 | 20 |
| 2018 | 507,213 | 20.6 |
| 2019 | 519,999 | 21.2 |

Figure 1 The Data of the Situation Before COVID-19

| During Covid | Covid case in Greece | Number of arrivals in tourist accommodation in Greece |
|--------------|----------------------|---|
| Feb-20 | 14 | 287 |
| Mar-20 | 1300 | 27.00 |
| Apr-20 | 1277 | 0.00 |
| May-20 | 326 | 0.00 |
| Jun-20 | 494 | 54.00 |

Figure 2 The Data from The Situation Before the Launch of the COVID-19 Protocol

| After covid | Covid case in Greece | Santorini airport arrival |
|-------------|----------------------|---------------------------|
| Jul-20 | 1068 | 53640.00 |
| Aug-20 | 5840 | 117829.00 |
| Sep-20 | 8158 | 77240.00 |
| Oct-20 | 20776 | 38444.00 |
| Nov-20 | 66020 | 1676.00 |

Figure 3 The Data of the Situation After the Launch of the COVID-19 Protocol

The second situation is before the launch of the COVID-19 protocol in March. In this case, the data collected consists of the Covid cases identified in Greece and Santorini airport arrival data from February to June, as shown in Figure 2. This data was used to calculate a regression model to determine the relationship between these two variables (Airport, 2021).

The third situation is after the launch of the COVID-19 protocol. In this situation, the study used Covid cases in Greece and Santorini airport arrival data from July to November, shown in Figure 3, in calculating a regression model to see the effectiveness of this protocol.

A survey questionnaire was used as the tools for data collection used in this study, with the resulting data being used to analyze the health protocol for traveling during the pandemic of covid-19 in Greece. This qualitative method can be used to analyze the health protocol using a population sample. Due to the pandemic of covid-19 the method of asking questions to people has changed,

due to the necessity for social distancing. For this study a telephone survey was used to survey the sample, while an online survey was also conducted via the applications of Line and Discord. The people of the sample surveyed came from Generation Z in Thailand, because Generation Z consists of “first jobbers” in the market and those most likely to pay for travel after the pandemic of covid-19. These people also have unique personalities, driving them to explore the world through travel, which can also involve the people around them, such as, friends, and family to travel with (LTd., 2020).

SWOT Analysis

Following the answers collected from the sample, the next step is to use this information in the SWOT analysis to answer the research objectives. This process was carried out by reading the answers for each question, rewriting from the individual opinions, identifying common ideas, and identifying which factors were considered to be strengths, weaknesses, opportunities, and threats (Bhandari, 2020).

The methodologies used in the research included both qualitative and quantitative methods. Regarding quantitative methods,

this research used a regression model as described above. Qualitative research consisted of short 5 question interviews. Interviewees were “first jobbers” working in the Asok area of Bangkok. The health protocol was explained to each interviewee, a total of 30 people, each of which were asked to answer the 5 following questions explaining their feelings. The questions were adjusted from Westrupp, et al. (2020).

- Do passengers agree to do a covid-19 test before traveling to Santorini in Greece?

- Do passengers agree to do 7 days of quarantine in Greece?

- According to the health protocol, do you think stakeholders can follow the rules easily?

- According to the strict rules of the health protocol, do you think it is difficult to follow or does it make you not want to go to Santorini in Greece?

- If you have a chance to travel to Santorini in Greece (you are permitted according to the passenger locator form), how would you prepare before travel?

The research objectives can be analyzed according to two methods as described above. Two theories have been mentioned, regarding the analysis of the health protocol: one is content analysts which is the main tool, while the other is SWOT analysis. The next section presents the result of each theory and analysis of the outcomes.

4. RESULTS

The results and analysis mainly focused on gathering and summarizing all the information collected from the survey. The information in the empirical table was applied in the context analysis, statistical calculations, and SWOT analysis, to explain and demonstrate it in deep detail. This research also aims to explain the results regarding whether or not the Protocol for Arrivals in and Departures from Greece really worked or not.

From the methodology involving an analysis of the situation in Greece, all 3 situations were examined and analyzed. The results are summarized as follows. First, from before the COVID-19 situation, as shown in Figure 4, the result of the R-Square of the data is 0.926, indicating an increase in the number of tourists from 2015-2019 and in the Travel and tourism contribution to GDP. This suggests that the increase in tourist numbers was responsible for the observed increases in the GDP. Accordingly, it can be concluded that before COVID-19, Greece was experiencing an uptrend in the travel sector.

Second, from the situation before the launch of the COVID-19 protocol, the result is not quite good, as shown Figure 5. The R-Square was only 0.43. The increase in the number of Covid cases, the lockdown of other countries, and the low season for travel, all caused a drop in the number of tourists as well

| | |
|-------------------|-------------|
| Multiple R | 0.96225344 |
| R Square | 0.925931683 |
| Adjusted R Square | 0.901242243 |

Figure 4 Regression Analysis Before COVID-19

| | |
|-------------------|-------------|
| Multiple R | 0.658211699 |
| R Square | 0.433242641 |
| Adjusted R Square | 0.244323522 |

| <i>Regression Statistics</i> | |
|------------------------------|-------------|
| Multiple R | 0.781847847 |
| R Square | 0.611286055 |
| Adjusted R Square | 0.48171474 |

Figure 6: Regression Analysis for After the Launch of the COVID-19 Protocol

as Covid cases in Greece until June. In June, the number of tourists began to increase due to the number of Covid cases going down. The Greek government consequently launched the Covid protocol to restore the tourism sector on 1st July. According to this protocol, tourists were required to write a PLF form before traveling to Greece.

In the third situation of “after launching the COVID-19 protocol”, the result of the R-Square is 0.61, as shown in Figure 6. When Greece's government launched the protocol, many tourists were traveling to Santorini, which had a peak in August of around 117,829 people. However, the Covid cases in Greece also increased during this time, indicating that the protocol may not be sufficient.

The Greek government may have seen this problem, leading to an adjustment in some details of the protocol which were announced in November. According to these adjustments, people traveling to Greece, were required to have received a negative PCR test result within the last 72 hours and would be

required to quarantine for 7 days in Greece. This screening test could identify any travelers carrying Covid-19 and made both tourists and local people feel safe. However, the decrease in tourists after the government launched the protocol cannot prove that the protocol is not effective. Around November until March of next year is the low season for travel to Greece, so the government must wait until April to see whether this protocol is successful or not. This research uses the data collected from the sample along with the current protocol to analyze whether this protocol is likely to succeed or not. This is discussed in the next section.

5. DISCUSSION

According to the objectives, the analysis of the data collected for the qualitative method were analyzed by reading all the answers from each person, rewriting their ideas according to the SWOT analysis, as shown in the table below.

| | |
|--|--|
| <p>Strengths</p> <ul style="list-style-type: none"> -Quarantine 7 days is reasonable duration (Some members of the sample compared the duration with the duration specified in Thailand) -Easy to follow the protocol procedure | <p>Weaknesses</p> <ul style="list-style-type: none"> -Some members of the sample want to travel after the Covid situation because they are lazy to follow the protocol -Travelers must prepare a greater budget for the 7 days quarantine (some members of the sample do not want to travel to Greece because of this reason) |
| <p>Opportunities</p> <ul style="list-style-type: none"> -People feel bored when they self-isolate for 7 days -Provide some service or entertainment for people that are required to self-isolate in hotels. | <p>Threats</p> <ul style="list-style-type: none"> - Covid is hard to prevent - 7 days self-isolation is insufficient for some people -The rules and regulations make people not want to travel to Greece |

To answer the research objectives this study included an analysis of the data based on SWOT analysis. For strengths, rules and regulations were considered to be easy to follow, while 7 days quarantine was also seen as a reasonable time for travelers. Regarding weakness, travelers must provide a bigger budget to account for the 7 days in quarantine. Some travelers are too lazy to go to Greece, because of the rules and regulations; waiting until there is a vaccine for COVID-19 is a better choice. Opportunities included the idea that hotels or other places that provide quarantine can offer entertainment for people. Lastly, for the SWOT analysis is threats, where COVID-19 was found to be the main concern. On the other hand, 7 days of quarantine was also considered to be insufficient for some people. In summary, it is determined that Greece's protocols are not strong enough, as the number of people who became infected increased after Greece launched their protocol, even though the number of travelers also increased. This suggests that Greece's protocol is lacking or is not sufficiently strong to protect the people. The conducted survey also shows the results of the SWOT analysis. These outcomes are similar to Zikargae (2020), but contrast to the work of Arshed, Farooq and Saeed (2020).

6. CONCLUSION, SUGGESTION, AND IMPLICATION

Greece's protocol should have an increased quarantine time. On the other hand, travelers will then be required to pay more for the quarantine. Greece could maybe provide some budget of subsidies for travelers, but this would come with a loss in government budget; Greece should balance itself carefully. Greece should also provide some entertainment and services for travelers, while they are self-isolating. Furthermore, there is no clear solution to preventing people from becoming infected. This research study suggests Greece launches policies that support its people. For example, providing a vaccine and health insurance for people who become infected and are required to stay in

state quarantine. Even though Greece provides a vaccine to their people, this is necessary if foreigners visit their country. Greece should provide state quarantine for foreigners and foreigners should have a certificate of vaccination and their COVID-19 tests. In the instance that a person has not been vaccinated properly, it could be possible that they become infected. Even though Greece is very strict on its people, Greece cannot control people from other countries. In conclusion, Greece must protect its own people properly, according to a government policy which minimizes the losses in their country.

Tourism is the main income source in Santorini. The regression of tourism businesses around the world after COVID-19 must halt. Accordingly, Greece developed the "Protocol for Arrivals in and Departures from Greece" for business to continue and for trust to develop regarding tourists visiting Santorini. As explained in the introduction, this research set the objective to analyze the "Protocol for Arrivals in and Departures from Greece" to determine its level of success. The objectives set in this research required the use of tools or theories to support the analysis of the protocol; these were developed from two former research papers. The first theory used in this paper included the use of the statistical tools and regression models in calculations of the three situations. These situations were identified as before COVID-19 happened (2015-2019); during COVID-19, but before the launch of the COVID-19 protocol; and during COVID-19, but after the launch of COVID-19 protocol. The results showed that the number of tourists increased during the launch period but that the number of people who became infected also increased. This result has a large effect on the tourist industry sector, because Greece and Thailand are similar in terms of earning a high GDP proportion from this sector. In the economic dimension, when COVID-19 interferes with operations in this sector, the business chain of the respective countries is broken. This leads to a reduction in revenue and of the government budget due to the lower GDP.

Consequently, entrepreneurs must reduce the number of products launching in the market, as local consumer do not have enough income for spending, due to the loss of employment from affected companies. The banks will not have sufficient savings to create loans for the public. The logistics and supply chains are stopped. This means that the protocol is sufficiently effective, and also shows that one tool alone cannot analyze this protocol sufficiently. Therefore, the implication of the study for implementation of a COVID-19 policy is that the country should set its policy not only for the protection of its industries, but also to provide a shield for the local people against COVID-19, minimizing opportunity-cost including provision of knowledge sharing explicitly regarding COVID-19 which, like its relative the flu, is a threat that no one can escape from.

REFERENCES

- Airport, S. (2021, 04 04). *Air Traffic statistics*. Retrieved from Santorini Airport: <https://www.jtr-airport.gr/en/jtr/air-traffic-statistics>
- Arshed, N., Farooq, F., & Saeed, M. M. (2020). Empirical assessment of government policies and flattening of the COVID19 curve. *Wiley Public Emergency Collection*, 2333.
- Bhandari, P. (2020, 07 30). *An introduction to qualitative research*. Retrieved from Scribbr: <https://www.scribbr.com/methodology/qualitative-research/>
- Farzanegan, M. R., Gholipour, H. F., Feizi, M., Nunkoo, R., & Andargoli, A. E. (2020). International Tourism and Outbreak of Coronavirus (COVID-19): A Cross-Country Analysis. *Journal of Travel Ressearch*, 687-692.
- Govgr. (2021, 04 04). Retrieved from Govgr: <https://travel.gov.gr/#/>
- Health, C. U. (2021, 10 19). *Content Analysis*. Retrieved from <https://www.publichealth.columbia.edu/research/population-health-methods/content-analysis>
- Hong, Y., Cai, G., Mo, Z., Xu, L., Jiang, Y., & Jiang, J. (2020). The Impact of COVID-19 on Tourist Satisfaction with B&B in Zhejiang, China: An Importance–Performance Analysis. *Special Issue Tourism and Health*.
- Knoema. (2021, 04 04). *Greece - Contribution of travel and tourism to GDP as a share of GDP*. Retrieved from Knoema: <https://knoema.com/atlas/Greece/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP>
- Liz, J. (2021). COVID-19, immunoprivilege and structural inequalities. *Seeing Clearly Through COVID-19*.
- LTd., T. (2020). *Study on Generation Z travellers*. Brussels: European Travel Commission.
- Oppah, K., Andre, K. P., & Collet, D. (2020). Singapore COVID-19 Pandemic Response as a Successful Model Framework for Low-Resource Health Care Settings in Africa? *OMICS: A Journal of Integrative Biology*, 470-478.
- Rene, M. (2021). Impact of COVID-19 on Tourism Industry. *Journal of Interdisciplinary Cycle Research*, 700-709.
- SantoriniView. (2021, 04 04). Retrieved from SantoriniView: <https://www.santorini-view.com/santorini-covid19/>
- Stacey, J. (2020, 12 14). Retrieved from OECD: <https://www.oecd.org/coronavirus/policy-responses/rebuilding-tourism-for-the-future-covid-19-policy-responses-and-recovery-bced9859/#boxsection-d1e40>
- THAI, B. (2021, 03 30). Retrieved from BBC THAI: <https://www.bbc.com/thai/thailand-56576365>
- Westrupp, E., Macdonald, J., Olive, L., Karantzas, G., Youssef, G. J., Greenwood, C., . . . Olsson, C. A. (2020). Study protocol for the COVID-19

- Pandemic Adjustment Survey (CPAS):
A longitudinal study of Australian
parents of a child 0-18 years.
worldometre. (2021, 04 04). Retrieved from
worldometer:
[https://www.worldometers.info/coronav
irus/country/greece/](https://www.worldometers.info/coronavirus/country/greece/)
- Zikargae, M. H. (2020). COVID-19 in
Ethiopia: Assessment of How the
Ethiopian Government has Executed
Administrative Actions and Managed
Risk Communications and Community
Engagement. *Risk Management and
Healthcare Policy* , 2803-2810.