The COVID-19 Pandemic: Why are Some Countries more Successful than others?

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The COVID-19 Pandemic: Why are Some Countries more Successful than others?

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Abstract

Background: The COVID-19 pandemic triggered unprecedented challenges to the government in all parts of the world. It is considered a major global health threat. In addition to health, all other aspects of life such as education, politics, public security, and economy are severely being affected. Governments around the world have responded differently to this pandemic and achieved differential success. Hence, this pandemic opens up a new avenue for research as many countries due to their unique socio-economic and technological context achieved differential success in controlling the spread of coronavirus.

Methods: This study mainly used "netnography" to generate data for this article. The netnography is conducted into two sources of data: materials available in different news medias and blogs, and data from social media. The rationale for choosing these platforms is because of the emerging nature of the data and the availability of the data. As the study does not follow any systematic process to collect data, the data can be incomplete and biased. Authors tried to control such problems through their continuous efforts. In the current situation when the problem is developing and information is scarce and incomplete, this kind of quick stocktaking can be a good approach to generate reliant knowledge.

Results: This article identified two types of critical factors that can affect a state's adopted policies: state-centric factors and socio-demographic factors. The discussion of the article indicates that managing crises like the COVID-19 need to consider people's attitude, demographic profile, citizen trust, culture, magnitude of policy learning, state structure, technological and administrative readiness of the respective country.

Conclusion: The countries which are not affected yet or still in the initial phase of the spread of the disease may learn from the factors identified in this article. Though, such initial success may not last for long due to another fresh outbreak of the disease, but the factors

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identified in this article may generate valuable knowledge for policymakers and practitioners to contemplate further for their countries and researchers to test further their actual effects.

Keywords: COVID-19, pandemic, management and strategies, public policy, coronavirus factors.

Introduction

The COVID-19 pandemic triggered unprecedented challenges to the governments in all parts of the world. All aspects of life such as education, politics, public security, and economy are severely being affected because of this global health threat. Governments around the world have responded differently to this pandemic and achieved differential success. Hence, this pandemic opens up a new avenue for research that aims to explore the effects of unique socio-economic and technological contexts in controlling the spread of coronavirus. This paper is an attempt to identify some key factors that have affected positively or negatively the efforts in controlling and preventing the outburst of the coronavirus worldwide.

Coronavirus and the pandemic

Coronaviruses are a large family of viruses that may cause illness in animals or humans [1]. The history of human coronaviruses began in 1965, and since then, in humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes the COVID-19 disease (*ibid.*).

The recent outbreak of coronavirus is also known as Novel Coronavirus (SARS-CoV-2), first officially reported on 31 December 2019 in Wuhan, the capital of China's Hubei province. After that, it has spread globally, and WHO declared this outbreak as a Public Health Emergency of International Concern on 30 January 2020. As of 09 April 2020, a total of 1,518,783 COVID-19 cases found, and 88,505 people have died [2]. The human race has not faced this scale of a pandemic since the 1918 H1N1 influenza pandemic.

COVID-19: Distinguishing better performing countries

Identifying better-performing countries that can prevent or mitigate COVID-19 is a challenging task as there is a lack of reliable data. The lack of data exists for different reasons such as the variation of the magnitude of the test to identify the diseases due to lack of testing

kits and even governments' exercise of secrecy policy to disclose the information. Official statements of different countries which follow *the culture of secrecy* may not always reflect the actual scenario. The actual number of cases is likely to be higher in countries as an unknown number of people with the virus have not been tested.

Another challenge is that corona is yet to spread in many countries and is still spreading in many countries. Time will say what will happen to those countries. Therefore, it is too early to discuss success stories and to claim that a country could ultimately beat the COVID19. Furthermore, as the outbreak started at different points in time in different countries, comparing them is difficult. To overcome this, we are following Leslie et al. [3] model. In their model, they started to track cases day by day from the moment when a country reaches 100 cases. Based on their model, some countries can be derived as "success story" as they can flatten the corona case curve in relation to the progress of time. The curve is based on the cumulative number of known corona cases over time. Some countries have recently been able to maintain a steady growth of infection and therefore formed a *flat line* or become successful in "flattening the curve" as termed by Leslie et al. (Figure 1).
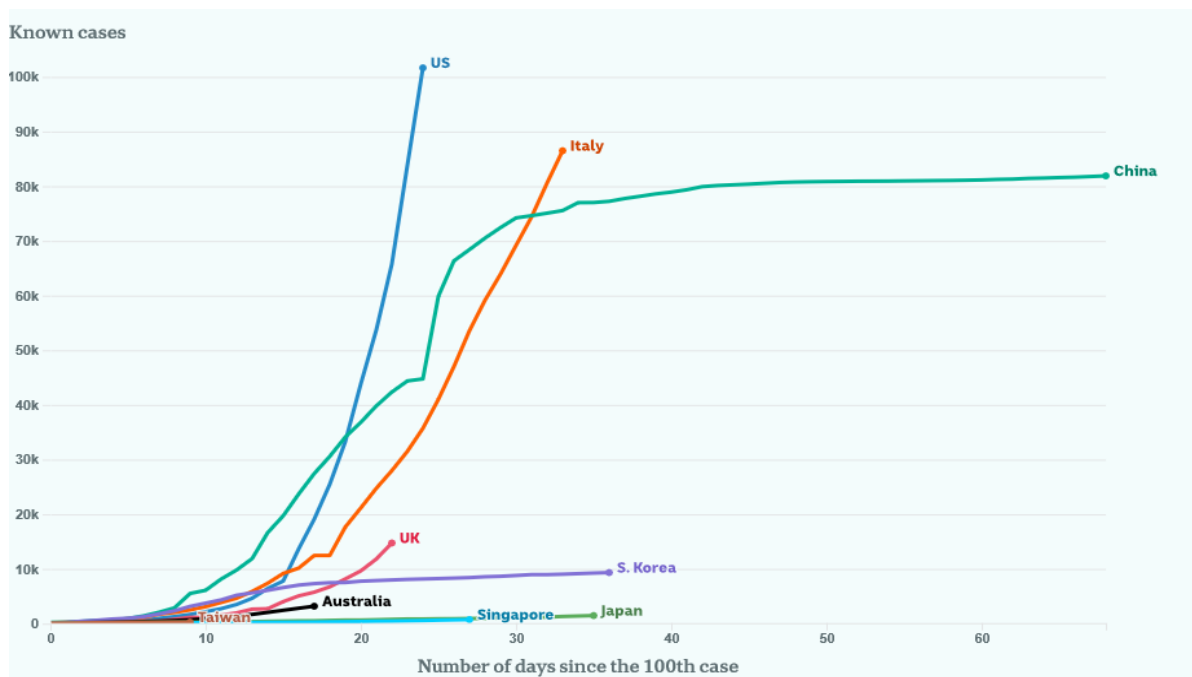

Figure 1: Distinguishing Better Performing Countries than Others by Using Leslie et al. (2020) model

Source: Leslie et al. [3].

Based on the principle of "the flattening curve," different countries like **China, South Korea** fall into successful stories to control corona**.** There are some countries in which the number of

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cases grew very slowly can also be part of 'flattening the curve, and hence **Singapore, Japan** is in the group of "flattening the curve" or better-performing country. On the other hand, Italy, USA and UK are facing exponential growth and, therefore, fall under the category of underperforming countries to control the diseases. This list does not include all the countries, but indicates some countries data (analyzed by Leslie et al. [3]), how far they are successful. This study includes the same logic to identify other successful and unsuccessful countries. Based on these logics, countries like Germany, Iceland are considered as successful and countries like Iran, Spain are considered as unsuccessful.

Managing Pandemic: A Theoretical Note

To deal a pandemic, a country may have two types of strategies: preventive strategy and mitigating strategy. Preventive strategies are those by which a country tries to prevent any outbreak of the disease; and mitigating strategies are those which help to control the spread of the disease after the outbreak. Both strategies can vary on two dimensions: effective and ineffective strategy. When a country's preventive strategy is successful in protecting itself from the outbreak of a disease than those strategies can be considered as "effective strategies," and if a country fails to protect than those strategies can be considered as "ineffective strategies." Due to lack of strategy or ineffective strategies, when there is an outbreak in a country, then a country needs to take mitigating strategies. If a country's mitigating strategies work to address the problem, that is, able to "flatten the curve" by reducing the number of patients suffering the disease, particularly as early as possible, then the country has more effective strategies; and if such strategies do not work than those strategies can be considered as ineffective strategy.

Analyses of both preventive and mitigating strategies in the current context of COVID-19 may help us to understand why some countries are more successful than others to protect the outbreak. In our study, we consider these strategies as state policy. We admit that putting the outcome of "preventive" and "mitigating" strategies merely into "effective" and "ineffective" is an oversimplification of public policy. Public policy is a complex process, and critical evaluation of policy measures may go beyond mere "effective" and "ineffective" categories. A policy measure can fall into in-between "effective" and "ineffective" scale. Despite, we kept it as two categories – effective and ineffective – for convenient discussion since policy evaluation is not the scope of this paper; rather, the objective of the paper is to "*illustrate the factors that are critical to the success of policy measures in fighting a pandemic*."
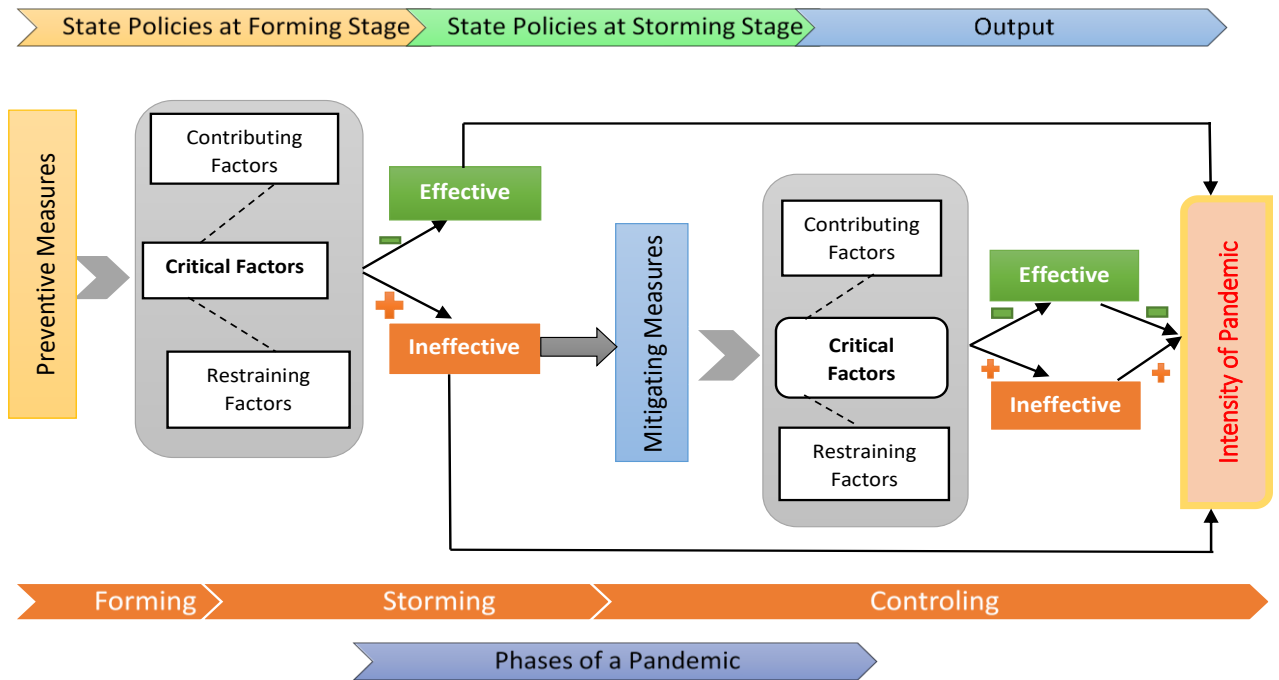
Figure 2: A state's Policy Effectiveness and the Intensity of Pandemic

In addition, many countries may not have any strategies at all, and they may fail to protect the outbreak and suffer, we argue this is also a policy for that country- a policy of doing nothing. However, by using two major strategies (preventive and mitigating) and their two dimensions (effective and ineffective), we can get a matrix (Figure 3) which may help us to understand the situation of different countries in a pandemic situation.

Effective	**Q2:** A state does not have effective measure to protect the disease but quickly can take effective measures after the outbreak. Probably **China** belongs here	**Q1:** A state is good in both strategies. It can protect itself and still if there is any small-scale outbreak, can mitigate quickly. Probably, Japan and Singapore fall here.
Mitigating Strategy	**Q3:** A state cannot protect itself from the pandemic and even after the outbreak, is very vulnerable due to lack of affective mitigating measures. Countries which helplessly suffer belong here.	**Q4:** A state is more capable to protect the diseases but if there is any outbreak, they are vulnerable.
Ineffective		

Ineffective · Preventive Strategy · Effective

Figure 3: Different scenarios for a country to protect and control a pandemic

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From Figure 3, we can get four different scenarios for a country. In the context of the current crisis of COVID-19, different countries have prevented the outbreak effectively (e.g., South Korea, Hong Kong, Japan), and control small-scale outbreak, so they may fall in scenario Q1. The countries which are prompt to take effective measures (e.g., China) and can quickly control the pandemic despite the outbreak may fall in Q2. The countries which fail to protect itself from the outbreak of the pandemic and are slow to take effective measures, they may fall into the scenario of Q3 and may slowly move to scenario Q2 when their measures started to produce effective results. Different developed countries such as Italy, USA and Spain may fall into this category. However, the countries which cannot develop an effective mitigating measure, entirely rely on the whim of nature to decrease the intensity of the disease, those countries (probably many developing countries) may remain in this Q3 category. They may just relay on the whim of nature to solve the problem. The countries which have less interaction with the outside world but do not have at all any capacity to handle the disease may belong at Q4. Isolated tribes may belong here.

The growth of a pandemic can be mapped into three different stages: **a) forming, b) storming and c) controlling**. The **forming** stage starts where the disease starts to spread in a country. It may have two subphases: 1) at first subphase, the disease usually starts to spread silently and often remain undetected; 2) at the second subphase, fewer people are detected to be affected by the disease but that yet to spread at the mass level. The countries which have an effective preventive strategy may control the disease at this level but otherwise it may enter into a **storming** stage. Here the number of affected people starts to increase exponentially, and the entire community starts to get affected. The number of death due to this problem may also start to increase significantly. The countries which can successfully mitigate the disease at this stage enter into a **controlling** stage.

Methodological note

This study mainly used "netnography" to generate data. The netnography is conducted into two sources of data: different news media and blogs, and social media. The rationale for choosing these platforms is the emerging nature of the data and the scarcity of the data. For news media, this study usually follows the established news platform such as BBC, Reuter, Al Jazeera, The New York Times, and The Washington Post. The selection of these outlets is biased to English language. To overcome this limitation, the authors used their Erasmus

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students' network to get non-English speaking news and platforms; and then take their help and also use google translator to translate.

This study does follow other websites but not systematically. The study also follows the comments of the previously mentioned news medias' Facebook pages. Their comment sections become a very important source to know people's perceptions on this issue. This mapping of the public narrative is not systematic. So, the opinions may not be representative, and maybe biased to selective opinions. To overcome this, the study tries to judge the relevance and merits of the comments. Despite such efforts, comments can have limited applicability, but still they are considered as they are also part of the current discourse on COVID-19 and shaping the events and can be valuable to generate relevant knowledge.

Findings and discussions

a) States and their adopted policies

State policies to deal COVID-19 vary a lot among the successful and unsuccessful countries. Most of the successful countries took effective preventive strategies from the beginning. Countries like Singapore, South Korea can be considered in this group. But other countries did not take the problem that seriously, so they did not take any significant step to protect the country or even if they took any strategy, that appear as insufficient and eventually proved ineffective. Even some countries like UK, Netherlands initially decided to go to the path of gaining "herd immunity." Instead of implementing measures to increase social distancing and testing as many people as possible, those countries purposefully want to let the virus spread among people who are at low risk, so that a large part of the population becomes immune. UK's Prime Minister Boris Johnson first proposed this approach and refused to implement social distancing measures initially [4]. Though, with the increase of the problem, UK needs to abandon that policy and forced to adopt stricter measures. Though, some people are still doubtful of the abandonment of such policy in the UK as someone writes:

> *"They secretly never abandoned the herd immunity plan."*

Other countries such as the Netherlands and Sweden are still continuing to hold on to this approach, despite harsh criticism by the WHO [4]. Sweden yet to lockdown but encouraging its citizens to maintain social distances.

The countries which failed to prevent the outbreak of the pandemic, their initial detection system did not work, and they may not even take the entire problem seriously. Italy detected

first confirmed cases on January 31 when two Chinese tourists from Wuhan were visiting Rome [5]. The following day, Italy stopped all flights to and from China and declared that the situation is under control. However, it is believed that the virus is there from mid-January and spread among local people who had no or mild symptoms. The first locally infected case was detected in mid-February and then gradually the number of reported cases started to grow in Lombardy, Italy [5]. Thus, the virus probably remained undetected for a long time and spread among the local people. Like Italy, the same happens in Spain. Lack of diagnosis contributes to the unawareness of the magnitude of the problem. A doctor in the southern city of Seville, Spain believes the lack of foresight and planning doomed Spain from the start. She added:

"With tests, we would have stopped a lot of the problems we have now." [6]

On the other hand, Germany was able to conduct large-scale tests as the outbreak unfolded but that was difficult for Italy (Rocha, 2020). Hence, Germany is able to map the infected more efficiently and is successful in containment. By comparing the testing situation with Germany, Health Secretary of UK said: "We have the best scientific labs in the world, but we did not have the scale. My German counterpart, for instance, could call upon 100 testing labs ready and waiting when the crisis struck" [7]. Like Germany, better performing countries like South Korea, Singapore, and Japan were prompt in their actions. After the first detection, they tested for the virus widely, isolated cases and quarantined suspected cases, thus, they were able to suppress transmission of the virus [8]. They have quarantined people with mild symptoms as well and thereby were successful in preventing community transmission.

The importance of isolation can also be seen in the case of Prato, Italy. Italy is one of the worst affected countries of the problem but there the Chinese community able to save themselves from the problem by isolating. The Prato textile district is host to 30,000 Chinese people [9]. Though, initially people are blaming them for the spread of the disease, but later on, it was found that none of them were affected by the disease because of their isolation policy. By indicating this shift of the perception about the Chinese migrant community, Reuters [10] had a news heading:

"From zero to hero: Italy's Chinese help beat coronavirus."

b) Exploring Some Critical Factors

The factors that can contribute to the variations of the different countries' adopted policies and their effectiveness can be mapped into two major groups: state-centric factors and socio-demographic attributes. Those factors are described below:

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State centric factors: Restraining and contributing roles

Policy learning from previous experiences

Different Asian countries which are neighbor of China such as Hong Kong, Taiwan and South Korea successfully prevent the outbreak of coronavirus. These countries were affected by earlier epidemics of SARS. From that experience, they learn their lessons and they were quick to adopt different measures such as travel bans, closing their borders to non-residents and 14-day quarantines. They also started to take travel and exposure histories from patients who had fever and acute respiratory symptoms and isolated those patients [11]. By summing-up all these, someone wrote on Facebook:

> *"Many Asian countries had learnt from their experiences during the SARS outbreak a few years back, so they are more prepared on taking the right preventive measures. While most of the Western/European countries see this as a game until the death toll starts to rise."*

Another person says:

> *"SARS affected countries have had huge load of experience dealing with similar viruses...hence they acted aggressively and quickly...the West did not respond because they did not understand the severity of it."*

Capacity and preparedness to "test and trace"

One of the major factors for the success of the different countries was early detection of the existence of the diseases. For this, state capacity played a significant role. For example, at the beginning of the problem, the UK was only using eight laboratories and on the other hand, at that time Germany had more than 100 labs ready to work for this problem [7]. By 27 March, 2020 Germany tested 1,096 per 100,000 citizens, while as of 1 April, 2020 the UK had tested 348 per 100,000 of the population [7]. Like Germany, another successful country is South Korea which has a slightly smaller population than the UK; it also has been able to test far more widely than the UK has (842 per 100,000 for South Korea). Like the UK, another unsuccessful country is USA which has tested 348 per 100,000 [7]. When the countries took different initiatives to extend their capacities like to use university labs, then there are other problems start to develop in different countries like the shortage of testing kits and reagents as all the countries are looking for the same due to the crisis. Vox [6] reported that large hospitals, including ones in Madrid, Spain could not process more than 400 tests a day. It quoted Chief of Microbiology of a hospital in Spain, "We would like to test everyone but

with the diagnostic capability and number of kits we have, that is not possible". Amidst this crisis, many countries such as Czech Republic, Netherlands, Spain are facing the problem of ineffective testing kits imported from China. Under such situation, though, someone raised the question regarding the necessity of test:

> *"We can test the whole country for COVAID 19 but then without any kind of vaccine/cure how does that help?"*

Someone responded:

> *"It's simple. Testing identifies carriers. Carriers than must be isolated so that they cannot transmit the virus."*

So, it seems the testing alone is not the main factor, it needs to be accompanied with the initiative to isolate the carriers. Someone writes in this connection:

> *"The sooner all the potential sources of infection are controlled and isolated, the sooner the virus stops spreading."*

Concern for economy and hesitation to take "draconian" policy for the state

At the beginning of the crisis, different countries were hesitant to lockdown as it can affect their countries' economy significantly. When the outbreak of the virus intensifies, then the governments of the different countries were forced to close everything but for many countries, that was too late. And in many countries, particularly in developing countries, people are forced to go out as they need to work for their daily livelihood. Because of this livelihood issue, one news outlet has 'heading' by describing the situation of India:

> *"India's poorest 'fear hunger may kill us before coronavirus'."*

But the concern for employment and economy is not only for the developing and poor countries; but other developed countries are also concerned about this. Because of this economic issue, Italian government did not take any decisive steps at the beginning. At that time, they were ignoring the issue; in one conference, Italy's Foreign Minister even criticized the media, which was raising the issue, and he said: "In Italy, went from the risk of an epidemic to an infodemic." The mayor of Milan says: "Milan Doesn't Stop" and reopen the Duomo for the tourist [12]. As a business hub, Milan attracted people from all over Italy and that contributes to spread the virus easily across the entire region [13]. Thus, the politicians assess the situation as less severe and they do not hurt their economy. The reassurance from the leaders confused the Italian population.

In Europe, the most affected countries are Italy, Spain and France. These countries are in the list of most visiting destinations by the tourists. For example, Italy is the fifth most visited county in the world, where visitor arrivals recorded over 63 million persons in December, 2018 [14]. Because of its substantial economic impact, the Italian government was reluctant to put any restrictions. By advising stopping tourist flow, someone writes:

> *"Halt all tourism activities and the influx of tourists from all over the globe temporarily until the number of patients will get lesser."*

Policy implementation structure

State structure can be an important factor to determine the nature of measures taken and how quickly a decision can be carried out. If a country is divided into different states and provinces which have the power to create "veto points" to implement a centralized decision, then a decision like complete lockdown can be challenging to implement. Despite lots of similarities among the Scandinavian countries, they have adopted different measures to deal COVID-19 crisis. Denmark and Norway were quick to take stricter approaches such as lockdown and closing borders. However, Sweden took relatively lax approaches to deal the crisis. The diverse response is attributed to the way these countries are run, particularly the relationship between government and administrative authorities, such as, health boards [15]. In both Denmark and Norway, the prime minister is the leading figure to deal the crisis but in Sweden, the state epidemiologist is also playing an important role and coming to the television more often than prime minister [15].

We can also see that when the US president initially declares that he wants to quarantine New York as it is a hotspot, but he has to withdraw his decision when the Governor of New York criticized it. The New York Governor responded by saying that quarantining the state of New York would be "preposterous" and "anti-American" [16]. He added that this would cause the stock market to crash in a way that would make it impossible for the US economy to "recover for months, if not years" and paralyze the financial sector. By supporting the Governor's decision, someone commented:

> *"Individual states have control superseding federal mandates…it's in the constitution."*

Later on, the US president tweeted that instead of quarantine, a "strong travel advisory" would be issued to New York, New Jersey and Connecticut by the Centers for Disease Control and Prevention (CDC) [17]. By seeing these, someone commented:

"The longer the quarantine procedures are delayed, the more server the outbreak of this deadly epidemic."

Another person added:

"Tiptoeing around the issue is going to cost lives."

Nature of governance

Probably, because of adoption of authoritarian nature, China successfully can contain the problem in Wuhan. Like China, India is also taking different coercive measures. In social media, there are videos where police are seen to beat people to send them back to their homes. Such kind of measures is not imaginable in liberal democracies. So far, some Western countries are taking hefty fines; for example, in Spain and Norway. Though in some cases, people are not even taking that initiative seriously. One person observed:

"Youths are laughing at the fines, its time those without reason are out should be detained on the spot."

Another person says:

"Why are people having parties still? People really don't seem to get it."

Because of this kind of behavior, police in different countries are taking stricter measures. BBC reported a piece of news about UK where the crowd refused to disperse, so police had to tip the barbecue over to put an end to the gathering. By describing the relationship between the authority and the Italian citizens, someone commented:

"They are said to be less cooperative with authorities, who knows?"

Though, there are criticisms of this kind of authoritarian nature of China. Someone wrote:

"China lives in dictatorship while Italy lives in democracy…China had the virus for months and was silent about for long".

In this regard, China could track and contain the affected persons. And among many of the features of the Chinese state that enabled the government to implement its policies effectively was the Social Credit Score system. According to reports, Chinese people adhered to the government instructions and did not hesitate to disclose their travel history due to the chance of a downgrade in their social credit score [18]. Therefore, governance nature is crucial for implementing effective mitigating strategies.

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Mismanagement at the medical sector

Most of the hospitals in different countries were not prepared for this kind of crisis, as a result, there was mismanagement in this area. During the COVID-19 crises, most of the countries were in dire need of different equipment. Simple lack of PPE (Personal Protective Equipment) causes a further spread of the disease. The problem is not only with the developing countries, it also happens with the developed countries. The World Health Organization (WHO) has warned that the shortage of PPE putting lives at risk from the new coronavirus and other infectious diseases (WHO, March 3, 2020). In many countries, medical personnel are serving COVID-19 affected patients by wearing trash bags due to lack of PPE. A piece of news in the Independent, UK [19] indicates that a nursing manager died at New York City hospital due to coronavirus where nurses were wearing trash bags as gowns due to shortage of PPE. In many countries, frontline workers like doctors, nurses, police and army are working without PPE. Observing these scenarios, one person commented on Facebook:

> *"Are they not humans? Will COVID-19 spare them?"*

Different countries are facing challenges to deal the crisis due to not only for the PPE, but also other necessary medical equipment like testing kits, ventilators and others. Due to lack of ventilators, many older patients are dying. In this regard, Vox [6] reported that in Spain, "doctors who treat patients with the most severe coronavirus symptoms are short of beds to put them in and respirators to help patients breathe."

Institutional trust and civil disobedience

The modern state usually claims its sovereign authority for ensuring peace, progress, development, and health. In pursuit of managing epidemics or pandemics, states claim authority over bodies as well. Consequently, during times of epidemics, people produce differential *understandings* of the disease as opposed to the state. For instance: during the late 19th century in the Indian subcontinent, there were revolts against the plague policy of the government in Mumbai and other major cities [20]. The cause, as we know now was people's lack of *trust* on the authorities. A more or less a similar situation is found in many countries now.

Why do people are violating the health guidelines and risking their loved ones? The answer is simple but complex. Many people do not *trust* what is being said about the possible effect of the virus. This tendency is not novel. David Arnold (1987) and I. J. Catanach (1986) in their studies on the Indian Plague of 1897-1898 have revealed a similar *distrust* [21] [22].

Therefore, the then British officials struggled to contain the spread of the contagious disease. The affected people were forcefully admitted into hospitals, pilgrims' movements were restricted, and traveling peoples' health status was monitored. People were dissatisfied with these policies then as many people now are frustrated about the policies requiring restricted movements.

During the COVID-19 like crisis, many governments also struggle to enforce their directives; particularly when a government orders for lockdown and isolation. In Western liberal democracy, enforcing such kind of directive is a bit challenging but for the government which has authoritarian nature can more easily impose such kind of directives. In this regard, someone commented:

> *"Objectively speaking, totalitarianism does have an advantage over liberal politics in terms of speed of response."*

In Spain, due to long dictatorship there is distrust among Spanish people about public authority and law enforcement [6]. The result was that few in Spain felt compelled to change their ways despite signs of chaos. And on the top, someone says:

> *"The Spanish character is not to believe a crisis is coming…once you see people die, that's when you react — but by then it's too late"* [6] .

For Western countries, it becomes more complicated when a country has less institutional trust (e.g., Spain or Canada for instance) [23]. In such situation, people are usually sceptical about government directives. Based on the latest World Values Survey (WVS) data, Chiu (2020) shows that more than 85 percent of Chinese citizens has a "great deal" of confidence in their government while in Canada, 39 percent said the same. Though, Scandinavian countries are different in this aspect. There they have very high trust in institutions. Many believe this high level of intuitional trust in Sweden is driving them to adhere the voluntary guidelines [16] and take a more risky path without lockdown the country.

Ability to be innovative and to use technology

Artificial Intelligence, drones, data science and other technologies are being deployed in many countries to fight the pandemic. For instance: Israeli government has decided to use technology to track people suspected or confirmed to have been infected with the coronavirus. They approved emergency measures to track people by monitoring their mobile phones [24]. Another successful country is South Korea which uses big-data analysis; their AI (Artificial Intelligence)-powered warning systems and intensive observation methodology

helped them to bring the coronavirus situation in the country under control in a short time [25].

Due to the cheaper availability of the technology, different offices of different countries can easily go online. For example, polls suggest that almost half of Stockholmers are remote working [16]. Such easy transformation is possible because of a business culture that has long promoted flexible and remote working practices. In different countries, educational institutions also started to provide education through online. These enabling factors help to restrict people's movement which ultimately helps to control the spread of the disease. Though, such efforts were affected in different countries where the internet speed is slow, and many cases even do not have the internet at all. Due to lack of these infrastructures, some countries cannot go online and need to continue offline activities. Such activities contribute to the spread of the pandemic. In this connection, someone writes:

> *"The Poor Can't Work from Home, Now Face Risks to Health & Income."*

Socio-demographic attributes: Restraining and contributing roles

Demographic attributes

The mitigating measures against COVID-19 have been severely influenced by local demographic attributes. For instance, Italy has the second oldest average age in the world after Japan [5]. About 23 percent of the total population in Italy was estimated to be aged 65 years (in Japan it is 28 percent, and in China it is 23 percent) [5]. In this regard, someone wrote:

> *"They have the 2nd largest older population and many are smoker."*

Someone added

> *"Those who smoke are at a much higher risk and already probably have compromised lunch capacity."*

Like Italy, Spain, which has the fourth-highest outbreak of COVID-19 in the world, also have larger number of older populations. Their one-fifth of the population is over 65 and thus at increased risk of "getting very sick" from COVID -19 [13]. Though, older people do not mean that one country will have higher causality as Japan has successfully protected its older people. If Italy could implement the preventive measures effectively, they could have stopped this impact of this demographic attribute.

Family structure

In addition to this demographic attribute, Italy has another disadvantage - its family structure; there young and older people live together. Not only in Italy, many Mediterranean countries also have multi-generational homes compare to Scandinavia and Germany. A report comparing the family structure between Germany and Italy indicates that in Italy, it is more prevalent than in Germany to stay different generations together in a family [26]. So, for Italy, it is difficult to isolate the older people but that is easier for Germany compare to Italy. Comparisons of data between Germany and Italy show that among Germans, only 10% of confirmed cases of COVID -19 were recorded in people over 60 years of age. In Italy, that number goes to 60% [26]. Another statistic on Sweden indicates that more than half of Swedish households are made up of one person, which cuts the risk of the virus spreading within families [16]. Though, there is criticism of these arguments, one person commented on Facebook:

> *"The Japanese and Taiwanese are also family-oriented with many generations living together. Yet, their rate is low. This makes no sense."*

Cultural practices and close proximity

Different cultural factors may also contribute to intensify the spread of the Pandemic in different countries like Spain and Italy. Spain has a deeply embedded late-night culture, with everyone staying out late to hang out [6]. Like Spanish, Italians are also very social. They value friendly and close interactions: hugs and cheek kisses are common among friends and colleagues as well [13]. That is why someone says:

> *"They go out after work, spend time together. This nation value close friendly and loving interactions and they paid the price for such practices."*

Along with this intense social interaction, the way they interact also may matter as they hug and kiss each other to greet. Someone says regarding this:

> *"It is like their way of saying, 'Hi'."*

Or

> *"They are the huggers and kissers and conversational and touch others when talking. So, the virus spread quickly."*

Another person added:

> *"There is a common point among Italy, France and Spain where the virus is spreading very fast, they kiss and shake hands all the time."*

On the other hand, Japan, which successfully controlled the problem have a different culture which may help them to keep the distance from others. By describing this contrast, someone commented:

> *"But in Japan, they do not have too much close contact. They don't kiss or shake hands to greet. They bow down…so in a way they already do have social distance."*

Religious and social sentiments

From religious gathering to football matches, different types of gathering contributed to the spread of coronavirus. Because of the sensitivity, different government was reluctant to intervene in religious gathering. In different countries (e.g., Iran, Malaysia, India), religious gatherings contributed significantly to the spread of the virus across the respective country. In Iran, the holy city Qom is at the center of the outbreak where millions of Shia pilgrims gather every year; the Irani government came under criticism for not closing the shrine there [27]. In India, one Sikh guru was considered as super spreader; because of his presence in a Sikh festival, around 40,000 residents from 20 villages were put into quarantine [28]. In Italy, in different churches, there are practices of using "holy water" which may also contribute to the spreading of the disease. Someone in Facebook commented on this aspect:

> *"They shared viruses through holy water and congregations at religious sites."*

A Champions League football match played in Milan, Italy also thought to contribute to the escalation of the problem both in Italy and Spain [29]. In connection to this match, someone wrote:

> *"Most cases from Spain were the people who went to Italy, specially a soccer game on February 19th."*

Attitude towards personal safety measures

During the course of the COVID-19 outbreak, we have seen varied acceptance of safety measures. Some places like Hong Kong, Seoul and Tokyo embrace wearing face masks easily than other western countries like US and UK. This acceptance and reluctance have cultural and historical reasons [30]. By supporting this BBC report, someone writes:

> *"I lived in Japan several years, it's normal for them to wear masks- allergy season, flu season, when they're unwell; they don't want to spread germs or get germs from*

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sick people. My first year in '99, I thought it was because of the sarin gas thing until I realized it was something they just do."

The reasons behind the varied public attitude were "confusing" instructions from the authorities. At the beginning of the coronavirus outbreak, World Health Organization (WHO) advises that only two types of people should wear masks: those who are sick and show symptoms, and those who are caring for people suspected to have the coronavirus. And others do not need to wear mask for several reasons [30]. One reason is that a mask is not considered as a reliable protection, given that current research shows the virus is spread by droplets, not by airborne transmission. And removing a mask requires special attention to avoid hand contamination. By criticizing these advices, someone says:

"If they don't work then why are the NHS workers are wearing them."

Another person blames Western governments and writes:

"Masks absolutely help to stop the spread of viruses. Western countries have a dire shortage of masks. The governments say that it doesn't help because they want to cover up the fact that they were woefully unprepared."

On the other hand, in some parts of Asia (mainland China, Hong Kong, Japan, Thailand and Taiwan) everyone is now using masks and they consider that as safer and more considerate behavior to others. There, the broad assumption is that "anyone could be a carrier of the virus, even healthy people. So, in the spirit of solidarity, you need to protect others from yourself" [30]. This report indicates that such kind of using mask may have significant implications by making people conscious about hygienic behavior. In this kind of pandemic time, every little bit count. By showing support for this kind of attitude, one person wrote:

"Even if mask is not 100% effective, it still gives you a few extra % of protections that you would not have otherwise. And in a pandemic that spreads quickly as Covid-19 does, every 1% counts."

Even nowadays, a large portion of some European countries like Czech and Slovakia are using the mask. By describing the situation there, someone commented:

"In Slovakia and Czech Republic, it is mandatory to wear a mask if you need to go out in public- they won't let you in a shop or a bus if you're not wearing one."

Similarly, another person says:

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"I live in Slovakia, here nowadays it is absolutely normal to wear safe masks. My mask protects you; your mask protects me. My mask is homemade, but still better than nothing."

Sensitivity towards particular terminologies

Lockdown, shutdown, and social distance have become very common since the outbreak of coronavirus. These terminologies as being adapted in different countries have also created confusion. For instance, when Bangladesh was shutting itself down, the public declaration was about "public holiday" thus contributed to the upsurge of traveling of people across the country rather than ensuring limited mobility. Similar arguments about context sensitive terminologies can be found in Singano's (2020) urge for using the term "physical distance" instead of "social distance." [31]. She claimed that in the African contexts when people are locked down into their homes, there could be a sharp increase in the violence against women and children and the possible spread of the virus.

Conclusion

The article summarized different possible factors that supposedly contributed to the possible spread and control of the COVID-19 pandemic. For this, the article tries to identify the countries which show relative initial success than others to prevent and to mitigate the problem so far. Such initial success may not last for long due to another fresh outbreak of the disease. The factors identified in this article may generate inputs for policymakers and practitioners of different countries. The discussion above reminded us that managing crises like the coronavirus pandemic need to consider people's attitude, citizen trust, culture, governance structure, age of the population, mobility of the people, technological and administrative readiness of the respective countries. The countries which are not affected yet or still in the initial state of the spread of the disease may learn from the factors identified in this article.

Methodologically, there can be lots of limitations of this article as it does not systematically collect any information. In most cases, the discussions are confined within a few countries and few sources. Information on other countries like China and Iran may help us but due to limited availability of information and language barrier, it is difficult to cover those countries. As the study does not follow any systematic process to collect data, the data can be incomplete and biased. Authors tried to control such problems through their continuous efforts. In the current situation when the problem is developing, information is scarce and

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incomplete; claims are less scientific evidence-based, then this kind of quick stocktaking can be a good approach to generate reliant knowledge.

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