

Research Topic : Impact of Contagious Disease on Different Scale
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1 ABSTRACT

The recent outbreak of unprecedented contagious disease, COVID-19 has significantly impacted world politics, economy and society as a whole. Without any cure at the moment, the pandemic has inflicted chaos and health concerns around the globe. Governments have started to impose lockdown and restrict the movement of their people, especially those in the red zones. Driven by a drop in consumer demand, the pandemic has brought huge economic damage and a dramatic fall to the global stock market. As such, this paper primarily introduces the political and economic response to COVID-19, then drills down further into discussing how pandemic has impacted consumers, businesses and economy. To curtail the downside impact brought by the pandemic, individuals and businesses such as insurance and tourism have adapted themselves to the new normal and brought up innovative solutions to the crisis via technological-driven approaches. World leaders stepped up to take initiatives for the invention of vaccines, while promoting social distancing among the public to stop the spread and flatten the curve. In the next research, we will discuss further on the global recovery in various fields after the pandemic.

2 INTRODUCTION AND STATEMENT OF PROBLEM

To explore further into the research, the readers are required to understand the fundamental definition of some of the terms which are frequently used in this research, such as contagious disease, pandemic, etc. The term “communicable” describes disease or condition that is capable of being spread from human to human, from animal to animal, between human and non-human animal, from the environment to human or non-human animals. On the other hand, the term “non-communicable” describes the disease or condition that is not capable of being spread in the ways above. The term “contagious disease” is a communicable disease that is spread by direct contact with the infected individual or their body fluid. Taking our object of study for example, COVID-19 is a contagious disease. A counterexample would be a disease that is not spreadable between animals or humans such as diabetes.

The World Health Organization’s declaration of pandemic on 11th March 2020 has brought a significant impact across the globe. One of the interesting observations is that the Wall Street went into a deep slump so quickly that the Dow Jones industrial average officially tipped into a bear market, ending a 11-year stock rally (Telford and Heath, 2020). The bear market on 20th March 2020 illustrates a 20 percent fall from records highs which the Dow hit less than a month before. The Dow tumbled nearly 1500 points after the WHO announcement and closed at 23553, with an approximate 6 percent decline on the day. At the same time, S&P 500 index closed at 2741 with a 4.9 percent fall and the NASDAQ composite tumbled 4.7 percent to 7952. With an impact to such great extent, it invokes the interest to confirm the reasonings behind such classification.

In general, contagious diseases are classified into three levels, endemic, epidemic and pandemic. Endemic is commonly used to describe a disease that is prevalent in or restricted to a particular location, region or population (Kelly, 2020). For example, malaria can be considered endemic to tropical regions. Moving up to a higher level, we have epidemic diseases. An epidemic disease is one that affects many persons at the same time and spreads from people to people in an area where the disease is not permanently prevalent. The WHO further specifies epidemics as occurrences in a community or region of cases of an illness, specific health-related behaviour or other health-related events clearly in excess of normal expectancy. Compared to epidemic, a pandemic is an epidemic that has spread over a large area, that is, prevalent throughout an entire country, continent or the whole world. The WHO more specifically defines a pandemic as a worldwide spread of a new disease, which is shown when they officially declared COVID-19 outbreak a pandemic due to the global spread and its severity.

The COVID-19 is caused by the novel coronavirus known as the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). The first human cases of COVID-19 were first reported by officials in Wuhan City, China, in December 2019. The Chinese authorities have then done a retrospective investigation and identified human cases with onset of symptoms in early December 2019. It has been found that many of the initial patients were either stall owners, market employees or regular visitors to a wholesale food market in Wuhan. In addition, environmental samples taken from this market in December 2019 were tested positive for SARS-CoV-2, suggesting Wuhan City

played a role in initial amplification of the coronavirus outbreak. Consequently, the market was closed on 1st January 2020.

After the outbreak was widely reported, it sparked the people's interest in understanding the nature and origin of the virus. The SARS-CoV-2 was identified in early January 2020 and its genetic sequence has been shared to the public on 12th January 2020 by China officials. It has been found, through genetic sequence, that the SARS-CoV-2 has an ecological origin in bat populations. This finding is a strong evidence in proving that the virus has a natural animal origin instead of being constructed or manipulated in a laboratory (WHO, 2020). In Section 6 of this paper, we will explain the manipulation and scepticism of the general public over this issue.

On 13th January 2020, the first recorded case of COVID-19 outside of China was confirmed in Thailand. This is the point at which the virus is no longer contained in China, but started spreading to the rest of the world, internationally. The attention given to this outbreak started to increase from this point onwards, and would continue to rise to a point where political and economical impact became so significant that it led to a global recession.

Ever since the COVID-19 outbreak, China as the first country to take the impact head on, has taken multiple actions that will very soon to be followed by other countries. The Chinese government imposed strict containment measures, including the extension of the national Lunar New Year holiday, the lockdown of Hubei province, large-scale mobility restrictions at the national level, social distancing and a 14-day quarantine period for returning migrant workers. Other countries, regardless of continent, the United States, Italy, Malaysia, etc have imposed similar containment measures in hopes to flatten the curve. However, the implementation is affected by the local culture and education of the citizens of each country. The acceptance of such measures by the locals will be discussed in Section 6 of this paper as well.

Other than the government, the private sectors and the general public have been actively involved in contributing to the recovery of the economy. For example, an informal group formed on 7th March 2020, by concerned actuaries, epidemiologists, longevity specialists and other individuals, with the name COVID-19 Actuaries Response Group has been actively discussing, influencing and responding to the COVID-19 crisis. Such voluntary actions taken by the people show human's tendency to work together in overcoming hardship, which is otherwise referred to as collectivist culture.

With all containment measures to slow down the spread of the virus, the daily number of infected cases went down as planned. However, the good news did not stay for long before the number rose again in a few countries such as Japan and Australia. The health care system in each country is being tested for its capability to react and adapt to such national emergencies. Worse, the containment measures have taken its toll on the local economy during this period. As the number rose again for some of the well-known countries, it reminded people of the importance of personal hygiene and social distancing to prevent the occurrence of second or more waves of COVID-19 in their country.

3 LIMITATIONS OF STUDY

Our focus of this study will be on the region of Asia Pacific. Hence, further research should be conducted to study the topic on a global scale. Secondly, researchers will be creating new questionnaires for a target sample size of 100 Malaysians to answer. Therefore, the research will only be able to gather a small sample of data and it will not significantly explain the impact of COVID-19 on Malaysians, instead giving a brief idea. Answering a questionnaire is also based on self-voluntary, so the respondents might not feel comfortable in answering the questionnaire because they have the rights not to and it is not an obligation to answer them. Furthermore, since it is an online survey, it might not be the best approach for the older citizens if they are not familiar with modern technology. The other limitation of the study is that the duration of the research is shorter. The research is being conducted for 4 weeks only which the information may not be absolutely accurate. The 4 weeks duration will also be insufficient for the researcher to investigate more deeply into this study. The longer period of time is preferable for the better outcome. Lastly, since COVID-19 was only introduced in less than 1 year ago, finding the relevant journals and previous research is difficult as the time series for journals will only be from December 2019 to July 2020 to be selected for the literature review.

4 METHODOLOGY

The Quantitative Research Method with primary data is applied in this research. Primary data can be defined as the data collected specifically and originally for the research (Kara, 2013). The primary data source will be collected by preparing questionnaires will be conducted to explain the impact of COVID-19 on individualism such as the awareness of social protection, financial management, the emergence of virtual environment, acceleration of digitization and the dietary lifestyle. For the collection of primary data, the research applies questionnaires that will be sent to the respondents and the sample size of respondents is set at 100 and the actual results from the feedback of respondents will be analyzed. Descriptive analysis will be applied to describe the foundation features of data or existing affairs in a research. It includes the fact of finding enquiry and survey. The statistic of the analysis is used in this research to express the quantitative descriptions which may describe the results such as the mean, median, mode and others. With the use of descriptive analysis, it allows this research to summarize the data in significant form and also be able to make an ultimate conclusion (Trochim, 2006).

Besides that, the Qualitative Research Method with secondary data will also be applied to conduct the research on how COVID-19 changes politics, economy and politics. Concepts, opinions and experiences will be analyzed for the degree of flexibility of using a resource already in place such as journals, articles, books and previous research (Rouse, 2017). Information collected will be used to explain the previous research on the impact of COVID-19 on the eyes on world leaders and the economic crash. Thorough findings, distinct opinions and interpretation of ideas from various previous researchers' works will be identified in respect of this study. Qualitative research has different requirements for assessing its rigor or consistency, as it requires the systematic selection, arrangement, explanation and analysis of written, verbal or visual evidence. As an instrument of qualitative study, a perspective on the researcher's impact on the research, a response to the study problem in different forms, such as observation and documentary review and a detailed explanation of the interpretation method, verbatim quotes from the data are given to endorse the interpretations (Hammarberg et al., 2016).

Quantitative Survey

On 7th August 2020, we have sent out an online survey containing questions regarding consumer behaviour in the areas of financial management, awareness of social protection, emergence of virtual environment, acceleration of digitization and change in dietary lifestyle, to students, friends, family and relatives. We received 61 respondents as of 9th August 2020, 11.59pm. 75 percent of the respondents are in their 20s and only 3 are 19 years old and 3 are above 50 years old, which the oldest respondent is 65 years old. 38 respondents are still students or unemployed whereas only 18 and 5 respondents are employees from the private sector and self-employed respectively. 48 percent of the respondents are females whereas 52 percent are males. Further breakdown of questionnaires will be explained below.

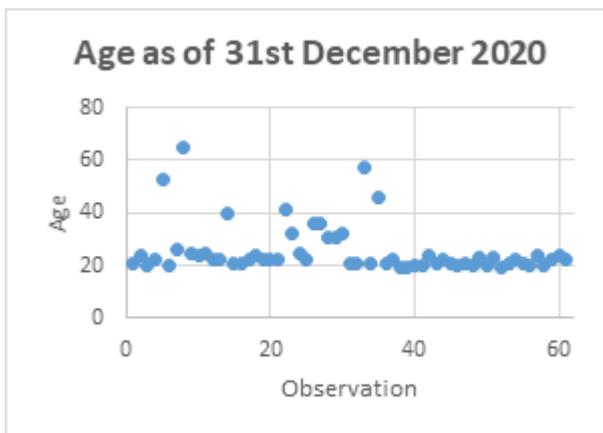


Figure 4.1: Age as of 31st December 2020

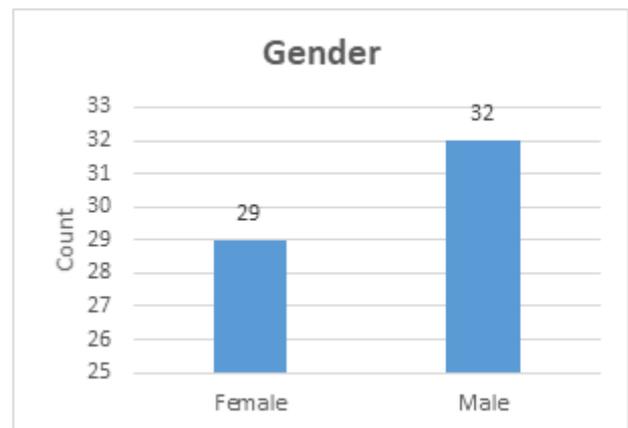


Figure 4.2: Gender

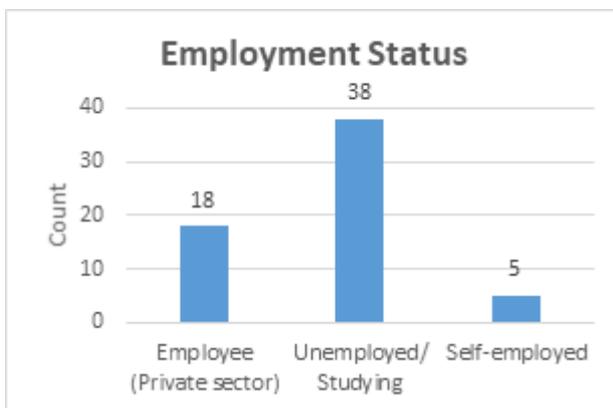


Figure 4.3: Employment Status

To start off the questionnaires, we studied the area of financial management of the respondents so that we would be able to understand more of the consumers' behavior that will be explained more in the upcoming sections. 66 percent of the respondents have an income of less than RM3,000 since most of our respondents are in their 20s, we believe that this income range falls

into the category of students and fresh graduates whereas we believe that the higher income groups are from experienced workers, senior management team and retirees.

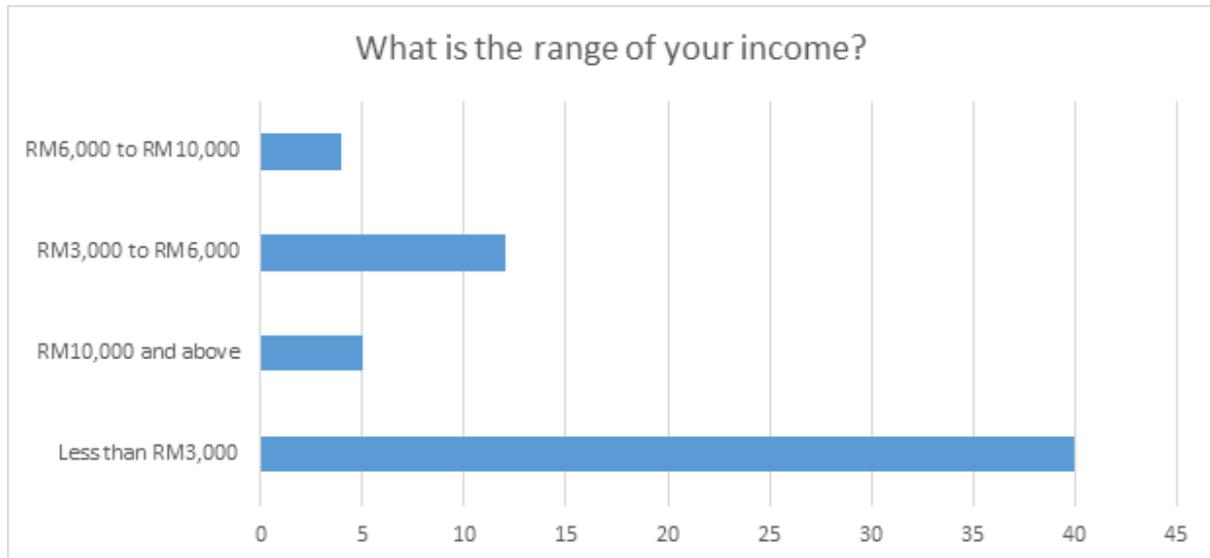


Figure 4.4: Range of Income

When the MCO was implemented on 18th March 2020, employees all over the country were obliged to stay at home to prevent the spread of the coronavirus. However, even though the daily routine of working was not available, most of the respondents' income were not affected. This might be due to most of them are still students and unemployed. Even for those who are employed, Defence Minister Datuk Seri Ismail Sabri announced that full salaries must still be paid during the lockdown even though everyone was staying at home. Failure of employers to do so would result in legal action being taken against them (Yunus, 2020). In terms of monthly savings, we believe that students and unemployed respondents are still unaffected whereas 34 percent of respondents had a decrease in monthly savings. This might be due to the acceleration of digitization, which more online retail shops are available for consumers to shop at home. This area will be further studied below.

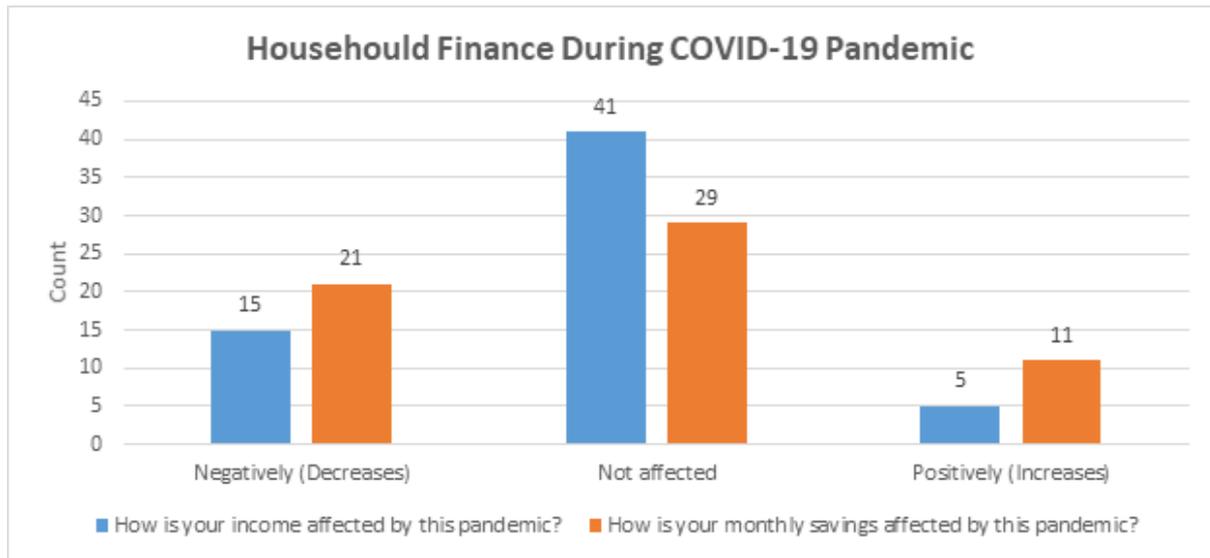


Figure 4.5: Household Finance During COVID-19 Pandemic

Ho et al. (2020) has summarized a survey regarding the impact of COVID-19 on household finances from China, India, Indonesia, Japan and South Korea:

COVID-19 impact on household finances

In the short term, most consumers expect income and savings to decrease, regardless of their outlook on the economy

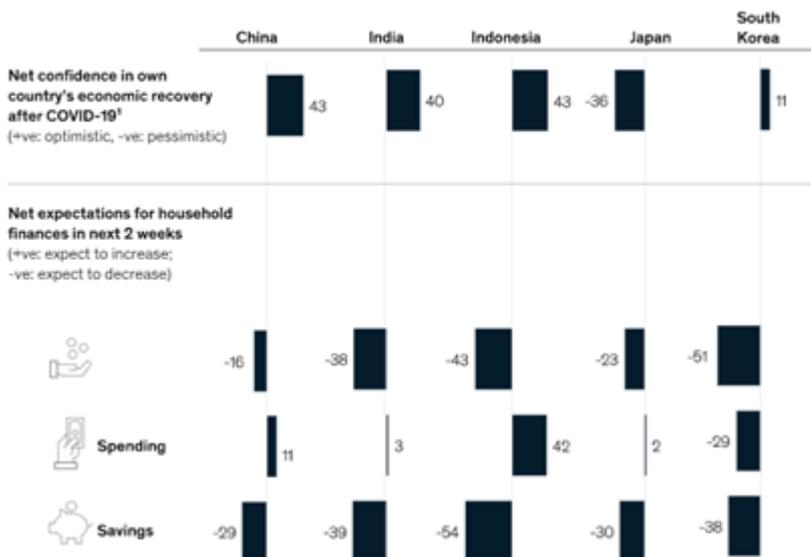


Figure 4.6: COVID-19 impact on household finances (Source: McKinsey & Company (2020). Graph is as of April 13, 2020).

Expected spend per category

Consumers are ramping up spend on groceries, household supplies and in-home entertainment

Expected spend per category over the next 2 weeks compared to usual¹
Net intent²

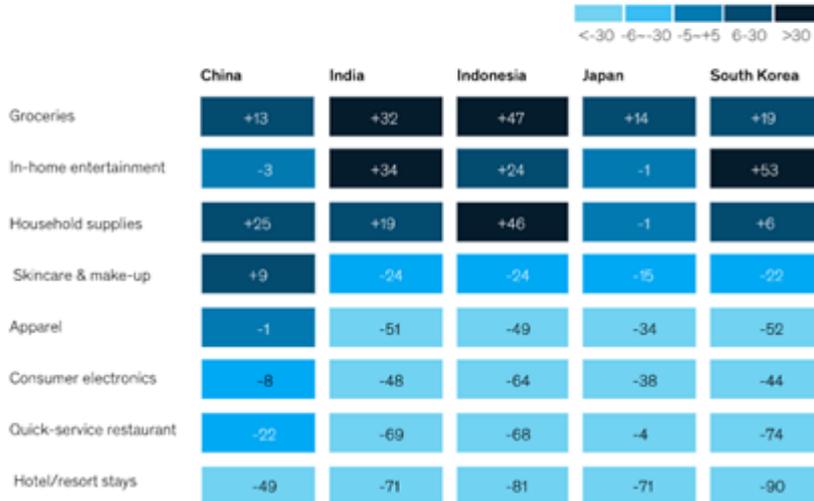


Figure 4.7: Expected spend per category (Source: McKinsey & Company (2020). Graph is as of April 13, 2020.

The last question of this section is the tendency to spend after COVID-19. More than half of the respondents answered neutrally and there were 15 responses for higher and lower tendency each. We believe that consumers would still spend but be more responsible, from conspicuous spending to rational spending, from shopping spree to essentials. Consumer confidence, unemployment rates and the living costs also impact spending. Any market disruption to the food supply chain will affect customers in deciding what, when, and how much to spend. If taken into account, the unemployment rate will decrease consumer spending as the take-home pay has come to a halt, and disposable income. Indiscriminate purchases are no longer the norm. But a reduced level of confidence will develop increased household spending. According to the survey by McKinsey, this is the case in India and evident in China and Indonesia (Abdul Hamid, 2020).

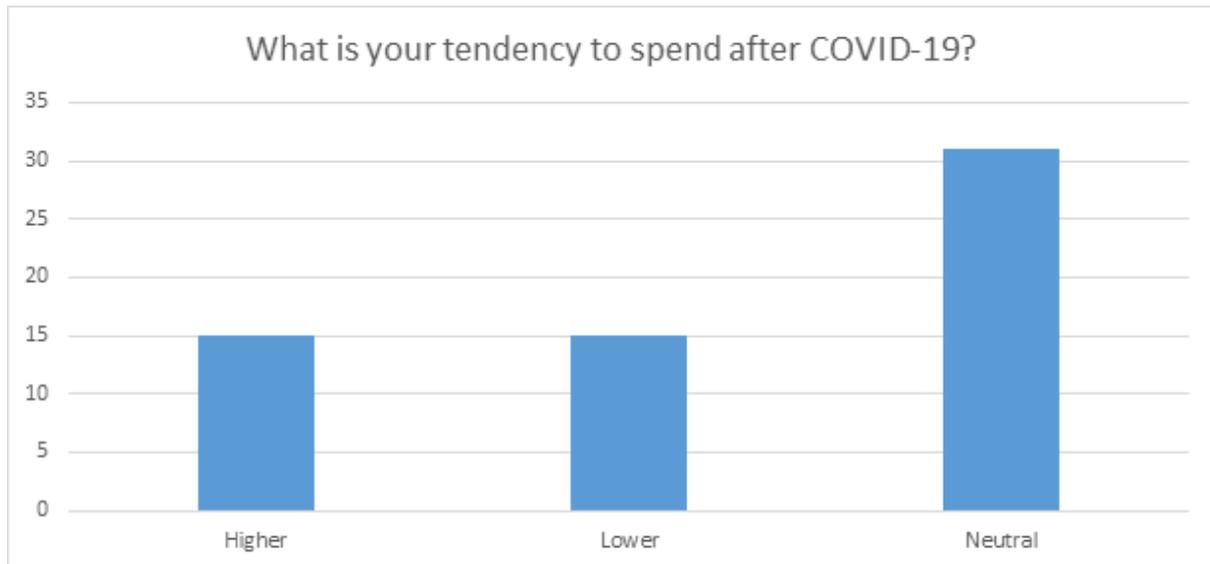


Figure 4.8: Tendency to spend after COVID-19

5 LITERATURE REVIEW

5.1 Eyes on the World Leaders

The novel coronavirus has greatly impacted the world in ways that no living souls have ever witnessed. The impact of this pandemic is so great that it challenged a lot of systems that have been put in place for a long time, for a change. As the saying goes, “With great power comes great responsibility”, it is the time for the world leaders to step out and lead the people out of this dire situation.

China, being the first country to have reported cases of COVID-19, has imposed strict containment measures to tackle the situation. The containment measures include extension of the national Lunar New Year holiday, the lockdown of Hubei province, large-scale mobility restrictions at the national level, social distancing and a 14-day quarantine period for returning migrant workers. These are the key initial measures taken by China to combat the spread of SARS-CoV-2 in the country. The timeline of the international spread of COVID-19 is shown in the table below in chronological order (Ravelo and Jerving, 2020).

31 December 2019	China reported a cluster of cases of pneumonia
1 January 2020	Huanan seafood market is officially closed for being suspected to be the source of COVID-19
7 January 2020	China identified new coronavirus as the cause of the outbreak.
9 January 2020	China reports first death linked to the new coronavirus.
12 January 2020	China shared the genetic sequence of the novel coronavirus.
13 January 2020	Thailand reported the first imported case of COVID-19.
16 January 2020	Japan reported another imported case of COVID-19.
20 January 2020	South Korea confirmed its first case of COVID-19.
23 January 2020	Singapore and Vietnam confirmed imported cases of COVID-19.
24 January 2020	Japan and the U.S. each confirmed second COVID-19 cases. Nepal confirms the first case of COVID-19 in the country.
25 January 2020	COVID-19 reached more countries. Australia, France, Malaysia and Canada reported COVID-19 cases in their country.
27 January 2020	Cambodia, Germany and Sri Lanka confirmed their first COVID-19 cases.

29 January 2020	The United Arab Emirates and Finland reported cases of COVID-19.
31 January 2020	The U.K., Russia, Sweden and Spain also confirmed their first cases of COVID-19.

Table 5.1.1: Timeline of the international spread of COVID-19

Within a month, the outbreak quickly escalates to a global situation where COVID-19 news can be found from countries other than China. On 23 January 2020, the director-general of the World Health Organisation (WHO), Tedros Adhanom Ghebreyesus decided not to declare the COVID-19 outbreak a public health emergency of international concern as recommended by the emergency committee. After travelling to Beijing for discussion with the government and health experts on the COVID-19 outbreak, Tedros decided to reconvene the International Health Regulations Emergency Committee for advice on the declaration of COVID-19 outbreak as a public health emergency of international concern. On 30 January 2020, Tedros declared the COVID-19 outbreak a public health emergency of international concern. This change in decision of declaration of COVID-19 outbreak as a public health emergency of international concern within a week has clearly shown the unexpectedly quick spread of the virus internationally. At that point of time, more countries outside China reported cases of infection such as India and Philippines. It has come to public awareness that the virus will potentially spread to countries with weak health systems.

The pandemic has spread to almost all countries across the globe except for a few. As of 6th August 2020, there were only 12 countries which have not reported any cases of COVID-19 (Aljazeera, 2020). These 12 countries are Kiribati, Marshall Islands, Micronesia, Nauru, North Korea, Palau, Samoa, Solomon Islands, Tonga, Turkmenistan, Tuvalu and Vanuatu.

5.2 The Economic Crash

According to the International Monetary Fund, after the initial containment measures are imposed in China, the economy contracted by 6.8 percent (year-over-year) in Q1. Starting in mid-February, the Chinese government has gradually removed the restrictions, prioritising the essential sectors, specific industries, regions and population groups based on ongoing risk assessment. Most of the businesses and schools are reopened nationwide with rules to adhere to such as social distancing and restricted foreign entry. Meanwhile, localised movement restrictions were re-imposed in new hotspots, such as north-eastern Jilin and Heilongjiang province, Beijing, Dalian and Xinjiang. An interesting effort has been put in place to gauge the path of the virus and contain outbreaks, which is the individualised health QR codes. After actions taken to normalise economic activities, the real GDP growth rebounded by 3.2 percent (year-over-year) in Q2.

The Chinese government has announced an estimated RMB 4.6 trillion, or 4.5 percent of GDP, of discretionary fiscal measures. The key measures in the fiscal policy are listed below.

1. Increased spending on epidemic prevention and control
2. Production of medical equipment
3. Accelerated disbursement of unemployment insurance and extension to migrant workers
4. Tax relief and waived social security contributions
5. Public investment

In overall, expansion in the public sector is expected to be more significant, showing the improvements of national public health emergency management system, additional support through state-owned enterprises and automatic stabilisers.

In addition to the fiscal policies, China has monetary policies in place to assist in economic recovery. The People's Bank of China (PBC) provided monetary policy support and acted to safeguard financial market stability in China. The key measures in the monetary policy are listed below.

1. Liquidity injection into the banking system through the open market operations, which are the reverse repos and medium-term lending facilities.
2. Expansion of relending (reduction of interest rates by 50 basis points) and rediscounting (reduction of interest rates by 25 basis points) facilities by RMB 1.8 trillion to support manufacturers of medical supplies and daily necessities.
3. Reduction of the 7-day and 14-day reverse repo rates by 30 basis points as well as the 1-year medium-term lending facility (MLF) rate and targeted MLF rate by 30 and 20 basis points respectively.
4. Targeted RRR cuts by 50 to 100 basis points for large and medium-sized banks that meet inclusive financing criteria, with additional 100 basis points for eligible joint-stock banks and 100 basis points for small and medium-sized banks to support SMEs.
5. Reduction of the interest on excess reserves from 72 to 35 basis points.
6. Expansion of policy banks' credit line to private firms and MSEs (RMB 350 billion).

7. Introduction of new instruments to support lending to MSEs which includes a zero-interest “funding-for-lending” scheme (RMB 400 billion) to finance 40 percent of local banks’ new unsecured loans and incentivising them to further extend payment holidays for eligible loans by subsidising 1 percent of loan principles (RMB 40 billion).

Moreover, multiple steps have been taken by the government to limit tightening in financial conditions, which include measured forbearance to provide financial relief to those which are facing repayment difficulties. The key measures are listed below.

1. Encouragement in lending to SMEs, which includes
 - a. Supporting uncollateralized SME loans from local banks
 - b. Raising the target for large banks’ lending growth to MSEs from 30 percent to 40 percent
 - c. Establishing an evaluation system for banks’ lending to MSEs
2. Delay of loan payments
 - a. Deadline extended to the end of March 2021
 - b. Eased loan size restrictions for online loans
 - c. Other credit support measures for eligible SMEs and households.
3. Tolerance for higher Non-performing Loans (NPL) and reduced NPL provision coverage requirements.
4. Support bond issuance by financial institutions to finance SME lending.
5. Additional financing support for corporates
 - a. Increased bond issuance by corporates
 - b. Relaxing rules on insurers for bond investments
6. Increased fiscal support for credit guarantees.
7. Flexibility in the implementation of the asset management reform.
8. Easing of housing policies by local governments.

Last but not least, the exchange rate has been allowed to adjust flexibility. A raise by 25 percent in the cross-border financing ceiling for banks, non-banks and enterprises under the macro-prudential assessment framework was implemented. Removal of restrictions on the investment quota of foreign institutional investors was also done in alignment of the country’s recovery.

These are merely the tip of an iceberg that we have explored in the economy of China. In Asia, most of the stock markets are negatively affected after the declaration of COVID-19 as a pandemic. For example, the Nikkei 225 index in Japan had fallen 3.6 percent, Hong Kong Stock Exchange was down 3.6 percent, Shanghai Stock Exchange composite index fell by 1.6 percent, FTSE Straits Time Index in Singapore fell 3.7 percent and Taiwan’s TSEC fell by 4 percent (Shu, 2020). There are more actions being done by the government, regulators, financial institutions, and other organisations in hopes to recover the falling economy in each country, as well as the global economy in general.

5.3 Acceleration of Digitisation

With COVID-19 ongoing fears and an emphasis on social distancing, it's not quite as safe and reliable to meet the proper authorities and get them to sign the paperwork. As a consequence, signing paper relevant documents while working from home is not always easy and companies around the world are discovering the greater use of digital signatures. E-signatures and digital signatures will make a difference. While e-signatures need only a basic picture that is pasted over the original text. If somebody sabotages one's email and changes its information in the document users signed, users can't detect it at all. Whereas more security protocols are equipped with digital signatures that help avoid it from being interfered with after signing (Shim, 2020). Digital signatures should be understood as more nuanced and process-based compared with e-signatures. Instead of being a simple icon attached to an electronic document, a digital signature requires verification by means of a private key recognized only by the individuals authorized to access the file for signing it. This private key actually refers to a public key kept by the document's owner, which allows them to assess the authenticity of the digital signature and trace any changes made to it (Wong & Partners, 2020). Edward Law, CEO of Securemetric stated that it is virtually difficult to counterfeit a digital signature because the entire cryptographic procedures are carried out within a protected setting. Compared to this it is easier to forge a handwritten signature.

The COVID-19 pandemic has stirred public concerns about the potential of transmitting the disease by cash. Scientific studies have suggested that the likelihood of transmission via banknotes is low in comparison with other objects that are regularly touched, like debit card stations or PIN pads (Gardner, 2020). In order to strengthen confidence in currency, central banks regularly consult, encourage continued cash acceptance and, in some situations, sterilize or quarantine banknotes. Digital wallets or other smartphone-based payment mechanisms such as saved card information or QR codes where different individuals do not physically touch the same item are examples of possible alternatives (Auer et al., 2020). Contactless card transactions, which are common for small purchases in many countries, do not require a PIN. Recently, European authorities, financial institutions and card networks, such as Germany, Hungary, the Netherlands and the United Kingdom and others have placed higher restrictions on contactless payments (Pawel, 2020). Looking forward, innovations could accelerate up the move toward cashless transactions. Online delivery platforms encouraged consumers to make payments through digital payment systems such as mobile payments, with government mandates in many parts of India. (Bhandari, 2020). This is expected to result in an expansion in the use of digital transactions, leading to developments on digital payment innovation diffusion. Unemployment rate increased during the lockdown, and authorities provided aid through mobile devices and automated payment forms. This solution is an easy mode of moving funds from donors to beneficiaries, as seen in previous cases of disaster relief. (Pollach et al., 2005). In numerous crisis and catastrophe situations, where civilian mobility was limited, several mobile financial service providers offered quick funds for migrant remittances to their homes (De et al., 2020)

Although the long-term effects of COVID-19 are still to be assessed, their instant retail effect is noteworthy. Before the pandemic, many consumer perspectives in-store had been focused on

creating enjoyment and interactions. Customers may assess their perspective in a store after the pandemic based on the hygiene, not having to be in contact with anything, and whether the store is wide enough to encourage social distancing. Those non-essential or premium retailers must also continue to develop their brand and connect with online customers (Roggeveen & Sethuraman, 2020). Digital Marketing Academy of Canada (2020) indicated that digital marketing, such as social media advertising, pay-per-click marketing and search engine optimization, is basically an adhesive that help enterprises maintain their endurance and prevents them from shutting down their doors and therefore can make sure that marketing campaigns placed the brand before potential customers as efficiently as possible. For example, to increase the investment returns, digital marketing may also promote advertisements and purchases on blogs and social media channels. In addition to keeping consumers aware about any shop closing, delivery delays and the measures taken to ensure their health, it may also reassure consumers how they can buy luxuries during the pandemic.

5.4 Emergence of Virtual Environment

Life continues while facing the pandemic. Breadwinners need to work and earn wages to buy necessary items such as foods and clothing for their families, and so business continues. Thus, remote working emerged and became popular in the business world. The analysis by the Climate Group indicated a potential average decrease in international business trips of up to 40%. 99% of respondents strongly believe that their company would permanently alter business practices after the pandemic is over with 86% of respondents saw a major shift to more sustainable remote working options (McCulloch, 2020).

However, although it seems intuitive to believe that remote working is universally better for the environment year-round with zero commute and no office energy consumption, the thought of creating a sustainable remote working option in the future still requires much more thinking and innovative solutions, taking geographical location and weather into account. According to David Symons, energy management in offices is more sophisticated than at individual homes in general. Remote working options might end up consuming much more energy as remote workers tend to heat the entire house instead of heating the single office building in the winter although it might save more energy in the summer as no air cons available in the UK. Besides, remote workers have to invest in lower-emission home infrastructure and increase the burden of living (Turits, 2020).

While many countries implemented partial or full lockdown and tightened border control to guard against import cases, citizens in some countries are advised to travel and take flights to other countries for essential matters only. Analysts at Cowen Investment Bank estimated that half of the planes in the world had been grounded due to the pandemic (Ellwood, 2020). As a result of governmental response, the tourism industry is the next to be impacted right after the aviation industry. Updated as on 8th August 2020, 87 countries were in completely closed mode and only 41 countries in the world did not have any travel restrictions for entry by air into the countries (Kayak, 2020). Completely closed mode implies only citizens, residents returning home, or people in other special circumstances may enter the country. In Malaysia, tourism is the third biggest contributor to GDP, after manufacturing and commodities. Yap Lip Seng, CEO of the Malaysian Hotel Association believed the country will lose at least 60% of its tourism business by 2020 (DW, 2020). Subsequently to save jobs, employees in the hotel sector faced wage cuts and unpaid holidays, to the extent of losing jobs for smaller hotels. To protect the tourism industry and save people from losing jobs, the only viable solution was to utilise virtual reality (VR) or create digital tours to promote the industry while looking forward for the world to reopen. Travellers were looking to purchase experiences rather than products (Revfine, 2020), transforming the travel industry with the use of virtual reality technology.

Drifting focus to public transportation, many people still remain wary about the safety measures to protect them from ill health. According to recent estimates powered by Moovit, passenger numbers in cities around the world were down 70% to 90% between January and April 2020. In this context, people will still be facing the risk of contagion and it could not be prevented by creating a virtual environment to travel from one place to one another. Instead, to mitigate the

risk of contagion, some countries rely on contact tracing technology to improve traceability and reduce passenger density. In Beijing, a system of online pre-trip reservations had been set up in the subway, together with voluntary on-board check-ins with QR codes (Rubiano, 2020).

5.5 Dietary Lifestyle

After the MCO was implemented on 18th March 2020, most of the businesses in Malaysia were going downhill but there was some exception. One of the businesses that had a huge win was the online food deliveries and cloud kitchens service. Cloud kitchens are structured, commercially licensed food manufacturing facilities where few restaurants produce delivery-optimized menu items (Colpaart, 2019). Lai Wick Kee, co-founder of Epic Food Hall stated that the adoption of the MCO has since ballooned the business. Now that people are hesitant to eat out, they have to demand their favorite food through online ordering platforms. Eateries now respond to this phenomenon, and high-end diners that in the past were unwilling to offer food deliveries are pressured to do so in order to survive. Consumers previously who were worried that their deliveries would be incorrect or that their meals would turn up late before they make their first orders are now more conscious of and highly approve of online food ordering services. Provided the fast-growing online food delivery market, however, there was a slow adoption of restaurants transitioning to cloud kitchens. Switching a retail food franchise that depends heavily on dine-in sales to a virtual network is an incredibly complicated task, maybe even undesirable by certain company owners as both marketing strategies function with differing strengths and drawbacks. Numerous foodservice operators opined on May 15 that cloud kitchens may not be feasible at this point in Malaysia due to hygiene problems. Chin Ren Yi, CEO of myBurgerLab, proposed that one user will not be capable of controlling the sanitation of other consumers in the same kitchen as the pandemic has altered a lot of things and asked "What if the hygiene problem of other operators causes the kitchen to be shut down? Who would be responsible if the other companies had to stop operations?" (Lim, 2020).

Even before the disease outbreak, online grocery shopping was becoming increasingly common in countries, but travel bans and concern of infection quickly led customers to choose online shopping as their preferred form of buying food (Singh, 2019). By encouraging customers to purchase food from home, it is highly likely that online food shopping has assisted to reduce COVID-19 spread and safeguard consumers at risk from pre-existing conditions. Chang & Meyerhoefer (2020) investigated a few fundamental features of digital food shopping decisions for potential customers using transaction data from Taiwan's largest online platform that sells agri-food goods. First, they evaluated how online shopping in a person's geographic area relates to the amount of COVID-19 cases. In doing so, they analyzed not only how case counts impacted the e-commerce platform's financial indicators, but also what kind of food customers purchased and which vendors benefited the most from the pandemic-induced rise in demand. Eventually, they discussed how the news media's emphasis on COVID-19 impacts customer engagement in online grocery shopping. Previous research has indicated that news articles can reflect and shape the opinions of consumers (Happer & Philo, 2013). After evaluating some of Ubox's financial success metrics, an online grocery shopping site, they found that Taiwan's online food stores grew dramatically after COVID-19 was spread into the country. Provided that Ubox sales grew by 5.7 per cent per added case, Taiwan saw an 18 per cent rise in revenue in an average week. Likewise, Ubox customers grew 16 per cent in a typical week.

Richards & Rickard (2020) also did a research on the impact of COVID-19 on the online grocery shopping area. They discovered that online grocery purchases surged as the pandemic spread because of the concerns of customers to be similar to others. Before COVID-19 spread, only 1.5 percent of groceries in Canada were sold online, a statistic that had risen to over 9.0 percent by the third week of March 2020. Thanks to the share of internet transactions made by elderly and families who have not historically bought food from home, the transition to online grocery shopping has been especially noteworthy (Charlebois, 2020). Most retailers charge fixed shipping fees which means consumers would be more likely to purchase their whole shopping list online to eliminate the threat of buying in physical stores. If customers know how to purchase online and appreciate the significance in terms of usability and efficiency, they will at least regularly stay as online shoppers. For fresh product suppliers, many agree that this encounter may be the turning point that pushes fresh food distribution past tech-savvy, daily online consumers into the core of the food ordering community. They concluded that the largest short-term effect of the COVID-19 pandemic will be felt by the realignment of supply chains for fresh products leading to the closing of almost all food service outlets.

5.6 Social Protection

Our lives are full of uncertainties. We are not able to predict what will happen to us in the next moment, including a pandemic. Once again, the COVID-19 crisis amplified the importance of insurance among the public, which is to protect policyholders from any undesirable consequences to their own health and safety, homes and businesses.

Responding to the crisis, central banks in the world slashed their interest rates to the historical low, even to the extent of essentially zero last March in the US. Due to the sustained low interest rate environment, Benjamin Serra, a Moody's Senior Credit Officer expected insurers' investment returns will fall for the next few years as a result of new income and maturing assets could only be reinvested at yields lower than the current yields (Actuarial Post, 2020). Being exposed to extreme market volatility, life and pension sectors are significantly impacted due to a higher positive correlation of stocks and interest rate movements.

Diving into life insurance, the industry will be more likely to face increased claims pressure. Despite life insurers did not receive a large amount of claims as many of those succumbed to the disease were in the age cohort that may not have coverage, the other cohorts were facing higher mortality risk due to fear of seeking medical care from hospital and the stress of self-isolation. To provide convenience for policyholders amid the crisis, Allianz China Life Insurance and Allianz Jingdong General Insurance had launched temporary emergency measures which even heightened the claims pressure such as removing restrictions on designated hospitals and drugs, waiving deductibles and eliminating waiting periods (Allianz, 2020).

While in general insurance, the impact will vary depending on the type and coverage of insurance products. While the motor insurance business had a minimal impact due to less demand and needs on the transportation sector, it raises disputes in the case of business interruption policies which usually pay out only if physical damage had occurred to assets or operations (Hay, 2020). Policies which don't specifically exclude "virus"-related damage were subjected to debates, whether claims shall be paid out upon losses incurred due to the pandemic. Meanwhile, event cancellations may cause huge loss to insurers. Analysts estimated that there was approximately \$2bn of insurance coverage in the Tokyo Olympics. (Hay, 2020)

Prompted by the acceleration of digital transformation, the behaviour of insurance customers has changed gradually but significantly, especially after the pandemic. Customers are well attracted to the speed, convenience and low cost of digital services. As such, insurtech companies came to its function, with some providing insurance comparison online platforms for customers especially young adults who were seeking for insurance products best suited to their needs in the market. The pandemic had fastened the pace of the traditional insurance industry transforming into insurtech, when people were advised to stay at home and practiced social distancing. However, the pandemic had badly affected the offline sales of insurance products. In China, the China Banking and Insurance Regulatory Commission (CBIRC) banned insurance practitioners from visiting clients physically or organising mass gatherings such as client information sessions and

road shows (Peters, 2020). Insurers were advised to implement digital measures such as online platforms and remote interactions to communicate with their clients.

Although the pandemic had severely impacted insurance business, insurers were expecting a growth in demand of insurance products in the future. In China, Ping An Group believed public awareness on the importance of insurance would benefit sales and bring a retaliatory rebound after the pandemic (Liang, 2020). In a recent study by Policybazaar, 51% of 14,624 respondents believed that it was crucial to have an insurance cover while nearly 80% of respondents said they were aware of insurance benefits especially during a pandemic (ET Online, 2020). Again, the crisis highlighted the importance of having an insurance cover.

6 How COVID-19 Changes Politics, Economy and Society?

6.1 Eyes on the World Leaders

The pandemic caused by SARS-CoV-2, COVID-19, has undoubtedly ripped the seemingly calm and growing human society apart. The politics, economy and society are all affected by this pandemic in different ways. At this point of time, it is interesting to look at how different people react to this pandemic. Take the western hemisphere and eastern hemisphere for example, the responses and attitudes given by the locals towards the measures imposed by the government are hugely different. The local cultures, education, health systems, and more factors contributed to all those responses from the people that make sense in one community but not in the other community. However, information transmission is quicker than ever with all kinds of social media platforms we have online. This gave rise to public opinions and influences internationally on the government and societal actions taken in different countries.

Let us take China for example, once again. When the coronavirus outbreak happened in Wuhan, the Chinese government imposed lockdown on the province. Now we know that the lockdown is necessary and the reason for it to be imposed is to halt the spread of coronavirus to the rest of the country. However, back at the moment when this was first imposed on the province, people were concerned by the government's action and the local health care system's capability and sustainability. It is undeniable that when the outbreak first happened in Wuhan, China, the local health care system was stressed and unable to accommodate all the infected patients. Some videos recorded by the Wuhan locals were put online, eventually shared to Facebook. These videos created an impression to the general public, that a city with a busy community has become a dead city with empty streets and stores. To make it worse, this happened during the most celebrated holiday by the Chinese, the Lunar New Year holiday.

In the fight against COVID-19, the medical staff as frontline warriors were working under enormous pressure. Despite the high risk of infection, the medical workers had inadequate protection from contamination, overwork, frustration, discrimination, isolation, lack of contact with family, exhaustion, and many more. In spite of working in a stressful environment for extended periods, the medical workers had to face the complaints from the patients and their family in a chaotic situation. This overwhelming pressure had caused some of the medical workers to have emotional breakdown. Video evidence of such breakdown and response from the medical staff were uploaded to the online platform as well. Some policies were implemented by the local government of Wuhan to address the mental health problems of medical workers. As of 25 January 2020, 1230 medical workers were sent from other provinces to Wuhan to care for patients who are infected or with suspected infection of SARS-CoV-2 (Kang, et al., 2020). The local government also strengthened the logistics support and helped to reduce the pressure on health-care personnel. In addition, the general hospitals in Wuhan have established a shift system to allow frontline medical workers in high-pressured roles to shift out and take turns to rest.

With reference to the timeline in Section 2, we know that the coronavirus outbreak has spread to many countries soon after it appears in China. Other countries mostly adopted similar containment measures such as social distancing, 14-days quarantine period, mobility restrictions, etc, according to the situational needs and public acceptance in their country. For example, Malaysia has imposed a multiple-phased Movement Control Order (MCO) under the Prevention and Control of Infectious Diseases Act 1988 and the Police Act 1967. The details of the order are listed below:

1. General prohibition of mass movements and gatherings across the country including religious, sports, social and cultural activities.
2. Sanctions covering all Malaysians travelling abroad. For those who have just returned from overseas, they would be required to undergo a health check and 14-day quarantine.
3. Restrictions on the entry of all tourists and foreign visitors into the country.
4. Closure of all kindergartens, government and private schools.
5. Closure of all public and private higher education institutions and skills training institutions nationwide.
6. Closure of all government and private premises except those involved in essential services.

With the exception of travel to Sarawak, a written police permit with a valid reason was originally planned to be required for interstate travel during the MCO. Consequently, a large number of people were reported to have swarmed the police stations for permits hours before the travel restriction was in effect. With the concern of crowding might exacerbate the spread of COVID-19, The Royal Malaysia Police (PDRM) called off the permit plan until further notice. In April, approximately 7000 military personnel were deployed to assist PDRM's roadblock operations. Moving on from 4 May 2020, Malaysia switched into Conditional Movement Control Order (CMCO) and the PDRM reduced roadblocks nationwide to focus on the enforcement of social distancing and curbing the entry of illegal immigrants and smuggling activities. On 10 June 2020, Malaysia switched into the Recovery Movement Control Order (RMCO) and further relaxed the restrictions by allowing interstate travel except areas under the Enhanced Movement Control Order (EMCO).

During the pandemic, when mobility restrictions are imposed in most parts of the world, and locals are required to stay at home, the online platforms played a huge role in influencing the public. Fortunately, the online society responded in a positive manner in general regardless of nationality. Many online campaigns were done to spread positivity and support towards medical workers as well as expressing gratitude to all those frontline heroes, such as "One World: Together at Home" by WHO and Global Citizen, and "Stay at Home" in the United Kingdom. There were trending phrases and hashtags online as well such as "Just Stay at Home" from Malaysia in the Prime Minister's announcement. As these videos and messages spread online, netizens responded to the news with gratitude and launched trends of positive emotional influences. As days go by, medical staff from all over the globe released educational videos to inform the general public about the nature of COVID-19 and the prevention measures to be taken by every individual in order to stop the spread of the virus in the community.

Number	Country	Total Cases	Total Deaths	Total Recovered	Active Cases	Total Tests	Population
	World	20,283,120	739,795	13,207,480	6,335,845		
1	USA	5,251,997	166,201	2,716,593	2,369,203	66,179,761	331,219,304
2	Brazil	3,057,470	101,857	2,163,812	791,801	13,231,548	212,727,180
3	India	2,271,586	45,388	1,584,162	642,036	25,281,848	1,381,493,158
4	Russia	897,599	15,131	703,175	179,293	31,000,000	145,941,605
5	South Africa	563,598	10,621	417,200	135,777	3,267,494	59,389,738
12	UK	311,641	46,526	N/A	N/A	18,605,095	67,925,918
17	Italy	250,825	35,209	202,248	13,368	7,276,276	60,451,600
31	China	84,712	4,634	79,284	794	90,410,000	1,439,323,776
85	Malaysia	9,103	125	8,809	169	1,063,304	32,410,904
136	New Zealand	1,570	22	1,526	22	498,480	5,002,100

Table 6.1.1: Summary of COVID-19 Cases by Country as of 11 August 2020

In Table 6.1.1, we have the summary of COVID-19 cases by country. The information is taken from the Worldometer website on 11 August 2020. With reference to the summary above, we can say from intuition that the numbers above are affected by a few factors such as government's initiatives, local culture, people's acceptance level, economic standard, health care system, etc. This spans across the three fields of our topic in this section, which are politics, economy and society.

For the first field, politics, we can take a few countries with large differences in the political or government's response towards this pandemic. Let us explore the differences in actions taken by the government of China, UK and USA. The timeline of the first report of COVID-19 case and lockdown in each country is given in the table below.

31 December 2020	China reported a cluster of cases of pneumonia with unidentified cause
7 January 2020	China identified new coronavirus as the cause of outbreak
21 January 2020	The US reported the first case of COVID-19 in the country
23 January 2020	China lockdown the Hubei province
31 January 2020	The UK reported the first case of COVID-19 in the country
19 March 2020	China reported zero local infection
20 March 2020	New York's Governor Cuomo issued a state-wide order that all non-essential workers must stay at home
26 March 2020	The Health Protection (Coronavirus, Restrictions) Regulations 2020 come into effect in the UK

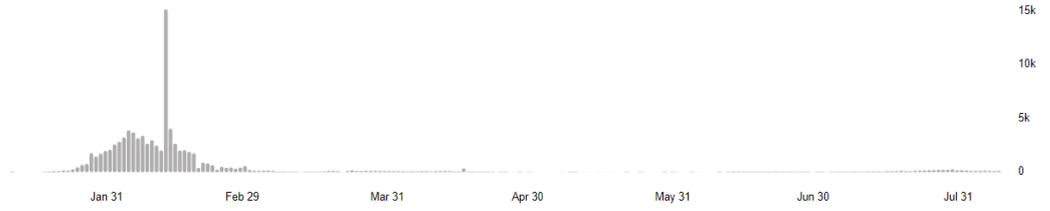
Table 6.1.2: The key dates from first report of COVID-19 and government's action

The time for the government to impose lockdown from the report of first case in the country are approximately 23, 55 and 59 days for China, UK and USA respectively. The time required for the governments to issue firm order to implement containment measure are significantly different.

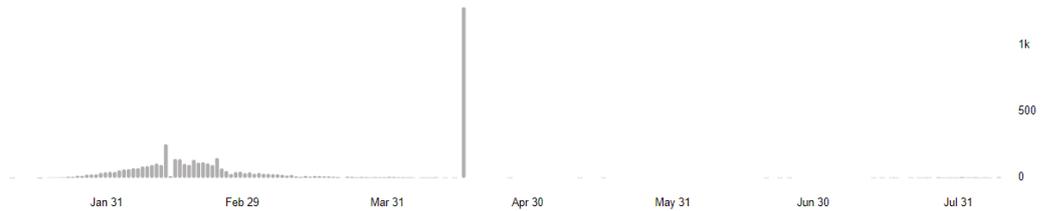
China Situation

Daily
 Weekly

89,270
 confirmed cases



4,693
 deaths



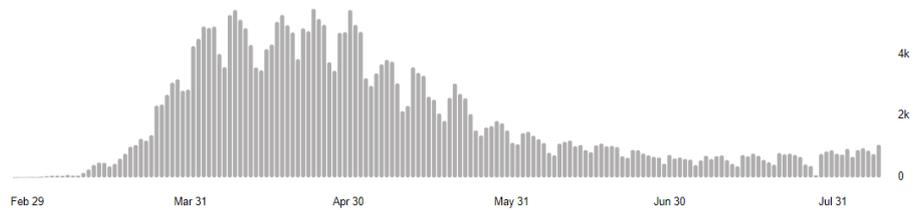
Source: World Health Organization

Figure 6.1.1: The number of confirmed cases of COVID-19 in China

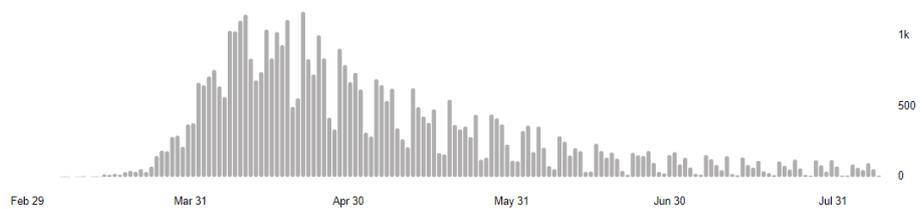
The United Kingdom Situation

Daily
 Weekly

310,829
 confirmed cases



46,574
 deaths



Source: World Health Organization

Figure 6.1.2: The number of confirmed cases of COVID-19 in the United Kingdom

United States of America Situation

4,951,851
confirmed cases

160,989
deaths

Source: World Health Organization

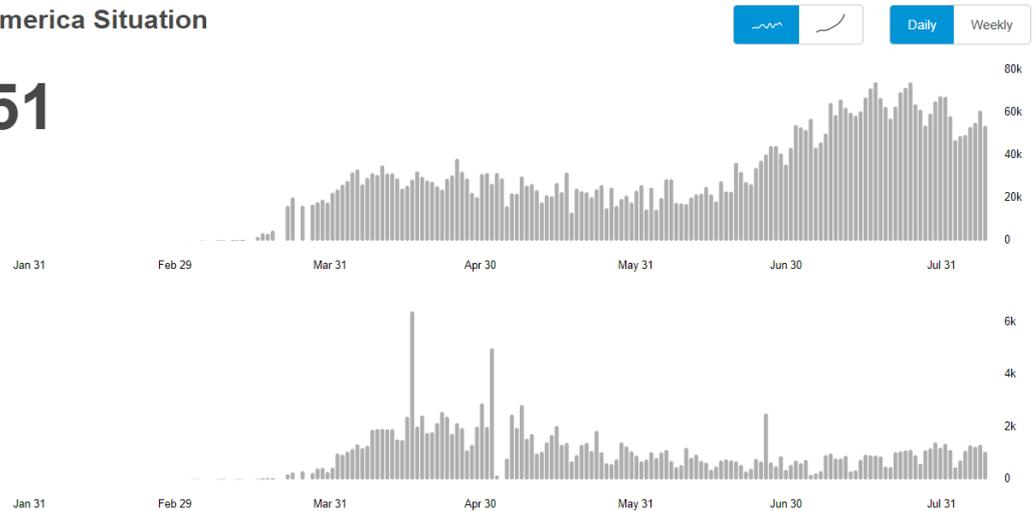


Figure 6.1.3: The number of confirmed cases of COVID-19 in the United States of America

In China, the government were able to impose strict lockdown in the Hubei province in a very short time and that helped to slow down the spread of the novel coronavirus to the rest of the country. Effectively, China reported zero local infection on 19 March 2020. On the other hand, UK and USA took a significantly longer time to impose strict containment measure such as lockdown. On 13 March, the UK government aimed to attain herd immunity in the country. However, this announcement generated controversy. After the Health Protection (Coronavirus, Restrictions) Regulations 2020 come into effect in UK, the people are not allowed to leave their home without reasonable excuse. The reasonable excuses are commonly shopping for necessities, taking exercise once a day, medical reasons, essential work or non-essential work where working from home is not possible. As a result, the UK managed to reduce the number of active cases after the lockdown is imposed. Around 20 March 2020, some states in the USA issued state-wide order that all non-essential workers must stay at home. However, this is not considered a strict lockdown as compared to restriction of interstate or interarea travel without specific reasons in other countries. On 26 March, the USA has become the leading country in the world in the number of confirmed cases of COVID-19.

However, reasonably, most of the people do not respond to the containment measures positively, as their freedom of movement around the country is restricted to certain extent and their daily lives are affected. In the USA, people are arguing that the compulsory order to wear mask is taking away civil liberties and personal freedom. There was an incident where a customer flashed a gun when he was asked to wear a mask and said that he was exempted from a state-wide mask requirement. This happened at RJ's Bob-Be-Que Shack in Mission, Kansas, United States. The mandate of wearing a mask has turned into a catalyst for political conflict. Most Democrats support the wearing of masks according to a poll conducted by researchers at the Pew Research Centre. Sadly, most of the Republicans do not support the wearing of masks. The battle over the mask-wearing mandate has escalated during the final weeks of the campaign season in the United

States. To ensure victory at the polls, some of the activists in Republican and Democrat even faced off on the issue of mask-wearing (McKelvey, 2020). The divide between those who support wearing masks and those who are anti-masks has become increasingly sharp. Sense of distrust has been growing between supporters of either side and they are blaming the opposite party for the country's economic and public health crisis. This is happening at a moment when there are millions of people in country are infected by the virus and over hundred thousand of people have died.

There are some other concerns from the people about not just their freedom, but also the change in policies and passing of certain act which might give rise to overpowered authorities. In the UK, the ex-Supreme Court Judge Lord Sumption warned that areas of the country risk becoming a "police state" following a series of incidents in which officers were accused of being overzealous in using their new powers (Beadsworth and Walawalkar, 2020). An incident was singled out by Sumption to show the significance of this issue, which is the Derbyshire's Police used drones to shame visitors at local beauty spots. The "Blue Lagoon" of Buxton was dyed black by the force to deter people gathering near it. On 3 April, police in the UK admitted that they wrongfully charged a woman with the name Marie Dinou, with a crime under the new coronavirus laws. Dinou has been fined £600 after the police found her "loitering between platforms" at Newcastle Central station on 28 March. She had been suspected of a railway ticket offence but was instead prosecuted using the Coronavirus Act 2020, which only applies to "potentially infectious persons". The conviction was due to be quashed and the police admitted it should not have happened. On 30 April, a wealthy businessman Simon Dolan announced that he intends to challenge the government over the legality of the coronavirus lockdown. Dolan warned the health secretary that he will issue proceedings for a judicial review unless the government reverses some lockdown measures and reinstate freedom of movement. His lawyers argued that the lockdown is legally defective and disproportionate in law.

The origin of COVID-19 became a hot topic during the pandemic as well. The President of the United States, Donald Trump claimed to have seen evidence to substantiate the unproven theory that the coronavirus originated at the Wuhan Institute of Virology, despite US intelligence agencies' conclusion that the virus was not manmade or genetically modified (Singh, Davidson and Borger, 2020). When he was pressed to explain what evidence he had seen that the virus originated in a Chinese lab, Trump responded, "I can't tell you that. I'm not allowed to tell you that". Before White House event, the Office of the Director of National Intelligence issued a statement declaring that the intelligence community "concur with the wide scientific consensus that the COVID-19 virus was not manmade or genetically modified". The World Health Organization (WHO)'s representative in China, Gauden Galea said the WHO has not been able to look at the logs from two laboratories in Wuhan that were working on viruses but that researchers are convinced the disease was not manufactured. We can see that the involvement of politicians and public influencers played a huge role and it could have manipulated the people into believing the unproven claim which create sceptical view on the truth of the COVID-19's origin. There is an increasing number of news reports about Chinese and Asians facing racist abuse in the US, showing that xenophobia has flared there. In the US, Asian Americans had to

choose between wearing a mask to protect themselves from the coronavirus, or not wearing a mask to protect themselves from discrimination (Global Times, 2020). Reports from Global Times also show children of Chinese descent in the US are refusing to wear masks at school because they fear being verbally abused by their classmates.

The socio-political impact is strong in countries affected by the pandemic. Especially for those countries with strong awareness of human rights and freedom in its people, with insufficient knowledge about public health and the direction of the government in flattening the curve, it is very easy for their citizens to be manipulated by the media or the crowd to go against the containment measures imposed by the government. This pandemic has brought changes to the countries in terms of legal rights, social perceptions, political stance, etc. While those changes are required to fight against the spread of coronavirus, it is within expectation that there will always be someone to challenge it. This is where we see the significant influence of local culture and education in such unprecedented times.

6.2 The Economic Crash

On 20 April 2020, the price of American oil futures contract plunged into the negative for the first time in history. This is a clear indication on how badly an already-fragile market has been hit by COVID-19. This coronavirus crisis has caused the demand of crude oil to fall to the rock-bottom and storage tanks to fill up. As a result, the companies are now paying traders to take the oil off their hands. Getting into the details, 21 April 2020 was the last trading day for the West Texas Intermediate (WTI) crude oil futures contract for May. This means that all the oil traded under this contract is set to be physically delivered next month, while many countries are still on lockdown, international travel bans are ongoing, and most importantly the demand for fuel is at the bottom. The fall in global demand for crude oil has made it clear to the US that its oil storage capacity will fill up eventually (Walker, 2020). Not just because the airlines and other buyers are not using as much as they were before the crisis, but also they have met the maximum capacity that they have to store oil. Consequently, sellers scrambled to dump May contracts and caused the futures prices to fall below zero for the first time. The price of negative \$4.47 per barrel means that the companies are now paying a buyer to take the oil off their hand to exit the market (Hansen, 2020). The June contract for WTI contract adjusted and recovered to around \$14.60 per barrel. On the better side, the international oil price was not hit as hard as the American oil price. Brent crude, which is the benchmark for global oil prices, had a price of \$19.67 per barrel for the June contract. The difference between the two benchmarks goes down to the storage. Brent crude is priced in the middle of the North Sea, where tanker storage is more accessible as compared to the WTI oil storage in the US which is limited and landlocked.

Now the thing one may be curious about the possibility for the price of the oil futures to be traded at negative prices again. This leads us to realise that no one knows for certain how much oil is currently being produced, nor how much oil is currently needed in the shuttered global economy. The balance between crude oil supply and demand has been unceremoniously severed. Unfortunately, there is no easy way to turn off production to meet the new oil demand. Global oil production is decentralised, efficient, and by necessity, incessant (Gilbertie, 2020). With an expanding global economy before the COVID-19, oil demand rose steadily over time, oil production rose with it in a demand-pull economic model. Brief periods of high oil prices were generally caused by rapid economic growth and the major oil producers' inability or reluctance in expanding production adequately. Alternatively, brief periods of low oil prices were caused by economic contraction or oil price wars between oil producing nations attempting to obtain larger market share and marginalising inefficient competitors. Throughout modern history, the balance between oil supply and demand was maintained by market forces, and when necessary, intervention by the Organization of the Petroleum Exporting Countries (OPEC). The free market forces had thrived in the economically stable world for the past decade, but now it is disrupted by the appearance of COVID-19. Today, the government-imposed restrictions during the pandemic have obliterated the demand side of the global oil balance sheet, resulting in the control over demand became the predominant influencer of prices. For the first time in modern oil market history, the demand side of the oil equation is being manipulated instead of the supply side. The oil markets will need some time to adjust.

There are a few countries that were greatly impacted by the disruption in the oil markets. Examples other than the US would be Russia, Saudi Arabia, Iraq, Iran and Nigeria. On 24 July, the Central Bank of Russia (CBR) cut the policy rate by 25 basis points to 4.25 percent, according to the International Monetary Fund. The CBR started selling their Foreign Exchange (FX) reserves from the National Welfare Fund on 10 March, reflecting the fall in oil price below the reference price under the fiscal rule and later for the purchase of Sberbank by the government. It also increased the limit on its FX swap operations. The CBR has temporarily introduced a long-term refinancing instrument, one-month and one-year repos. There are more policies implemented by the Russian government in order to tackle this failing economy. On the other side, Saudi Arabia is one of the producers facing a real threat by the disruption in oil market due to COVID-19. The kingdom has high dependence on oil since it contributed to 50 percent of their GDP. In a worse situation, the kingdom assumed an oil price of \$60 per barrel in their FY 2020 budget. Saudi Arabia's Ministry of Finance announced new fiscal measures to raise more non-oil revenues, rationalise spending and maintain the budget envelope. These measures consist of additional cuts and delays in capital spending, removal of cost-of-living allowances for public sector workers effective 1 June, and increasing the Value-Added Tax (VAT) from 5 percent to 15 percent effective 1 July. The Saudi Arabian Monetary Authority (SAMA) reduced its policy rates twice in March, lowering its reserve repo and repo rates by a combined 1.25 percentage points to 0.5 and 1 percent respectively. The Governor has announced that the central bank is ready to supply liquidity if needed. On 14 March, SAMA announced a SAR 50 billion (2 percent of GDP) package to support the private sector, particularly SMEs, by providing funds to the banks to allow them to defer payments on existing loans and increase lending to businesses. SAMA also instructed the banks to delay payments of loans extended to all Saudi employees by three months without extra fees. This could help those who have lost their jobs by exempting them from various banking fees. On 1 June, SAMA announced the injection of SAR 50 billion into the banking sector through deposit placement to support banking liquidity and private sector credit.

Not only the oil markets are affected, the global and local supply chain are disrupted as well. In Malaysia, panic-buying has caused a short-term deficit in the food inventory since supply could not match the outburst in demand. A researcher at Universiti Putra Malaysia's Institute of Agricultural and Food Policy Studies has warned of periods of food shortage if the government fails to address the disruptions in distribution due to the Movement Control Order (MCO) (Aiman, 2020). The supply of food can be chaotic and may cause prices to hike resulting in social disruption on a domestic level. Both farmers and wholesalers were heavily burdened by the restrictions. Delivery trucks are now subjected to rigorous checks by the authorities. This was causing not only the late delivery but also the deterioration in the quality of fresh products. According to Malaysiakini, restrictions on traffic and market operating hours under MCO have adversely affected the supply chain for vegetables and raw food. Due to various considerations and regulations imposed by local authorities, many vegetable sellers and vegetable delivery truck drivers said they would rather stop their service to avoid problems. This has led Cameron Highlands farmers to dump hundreds of tonnes of vegetables, resulting in a huge amount of food wastage as well as lowering the income of farmers greatly (Chandiran, 2020). Meanwhile, to

cushion the impact of COVID-19 on the country's economy, the Malaysia Ministry of Health (MOH) set up a special fund known as the COVID-19 Fund (Md Shah, et al., 2020). The money in this fund are to be channelled to patients, particularly those who were affected financially due to the quarantine procedure. This fund initially received RM 1 million from the government and private sectors, later supported by NGOs and individuals as well. With this fund, RM100 was given daily to those who lost their income throughout the quarantine and treatment processes. In addition, the money collected was used to cover medical expenses such as buying crucial equipment and other supplies. The Inland Revenue Board (IRB) offered tax deductions for cash and item donations to further encourage contributions to help the affected communities. To extend funding, the Ministry of Health and Tenaga Nasional Berhad (TNB) established an action coalition to obtain financial aid from corporate companies, government-linked companies (GLCs), and other organisations in Malaysia. The funds collected were used by the MOH to restock medical supplies as well as necessary health care items to curb COVID-19.

With impacts ranging from the macro to micro scale, the World Bank estimated that the coronavirus pandemic will push 71 million people into extreme poverty. The World Bank's pledge has made available \$160 billion in grants and financial support to countries over 15 months. Among the announced programs, an approximate 70 percent are health operations, and 33 percent are in fragile and conflict-affected settings, such as Djibouti, Haiti and Mali. In general, these operations focus on three priority areas.

1. Helping developing countries implement emergency health operations
2. Protecting the poorest households and most vulnerable
3. Focusing on stronger health systems and pandemic preparedness

In the Philippines, the Bank's response will strengthen capacity to prevent, detect and respond to the threat posed by COVID-19. Banking funding will also help improve public health preparedness for future disease outbreaks. The Bank will advise the Ministry of Health on the design for hospital isolation and treatment centres to manage patients with severe acute respiratory infections (SARI) and help expand the country's laboratory capacity. In India, the Bank is providing their largest ever health sector project with a \$1 billion emergency package that will procure testing kits, ventilators, medicines and personal protective equipment (PPE), as well as setting up new isolation wards, upgrading existing wards and expanding intensive care units. Other than these examples, the Bank is working to help many more countries in prevention, treatment and resilience in facing the pandemic.

In the short term, there is another issue to be raised which is the employment rate. The United Nations (UN) International Labour Organisation predicted 1.6 billion informal economy workers could suffer massive damage to their livelihoods. We will investigate how the unemployment rates in the Group of Seven (G7) economies are affected by this pandemic.

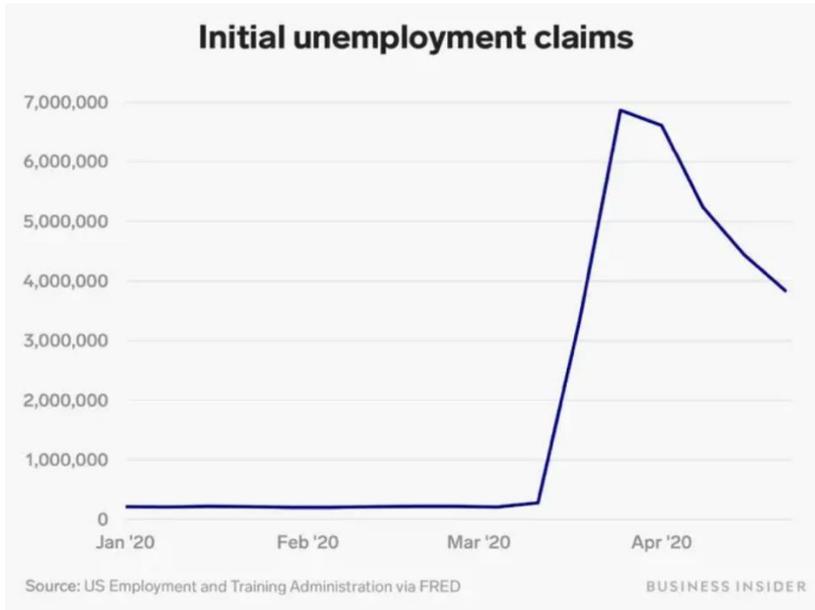


Figure 6.2.1: Initial unemployment claims in the US

In the week to 25 April, 3.8 million Americans made an unemployment claim, giving a six-week total of around 30 million. Payroll processor ADP says the US private sector shed more than 20 million jobs in April 2020. The US Congressional Budget Office predicts 15 percent of people could be unemployed by the third quarter of this year. As for its neighbouring country, Canada, the unemployment rate was 13 percent, up 5.2 percentage points in March, according to data from the country’s official statistics bureau. During the COVID-19 crisis, more than 7.2 million people have applied for emergency unemployment assistance out of its approximately 38 million population. The Canada Emergency Response Benefit (CERB) gives financial support to employed and self-employed Canadians who are directly affected by COVID-19. If one is eligible, he or she can receive \$2000 for a 4-week period, which is equivalent to \$500 a week. Meanwhile, the unemployment rate in Japan is rising more slowly as compared to other G7 economies. In March, the figure was 2.5 percent, with 1.76 million unemployed. It is just an increase of 20000 from the same month in 2019. However, the job openings are at their lowest level in three years and there has been a significant increase in the number of people who request for emergency loans to cover job losses and wage cuts (Kretchmer, 2020). In May 2020, the main statistics office of the UK showed employment at record high and unemployment at around 4 percent. This is however not reflecting the immediate situation because there is more of a time lag on the UK’s official unemployment data. KPMG forecasted the unemployment rate to rise to just under 9 percent during the lockdown period. Almost 2 million people in the UK applied for the main benefit, Universal Credit. In France, more than 10 million workers from the private sector were being supported by the state through chômage partiel, which is partial employment or short-time working. In Germany, the unemployment went up to 5.8 percent, which indicated a rose of 373000 unemployed workforce in April 2020. The unemployment rate has risen far less in the Germany as compared to other countries because of the government scheme to subsidise wages of struggling employers and employees called Kurzarbeit, or short-time work programme. Finally,

for Italy, the unemployment rate dropped to 8.4 percent, the lowest level for approximately nine years. The government accredited this to 267000 less people looking for work since the rate measures active job seekers. The table below gives the unemployment rate for the G7 economies by month, from Dec 2019 to Jun 2020.

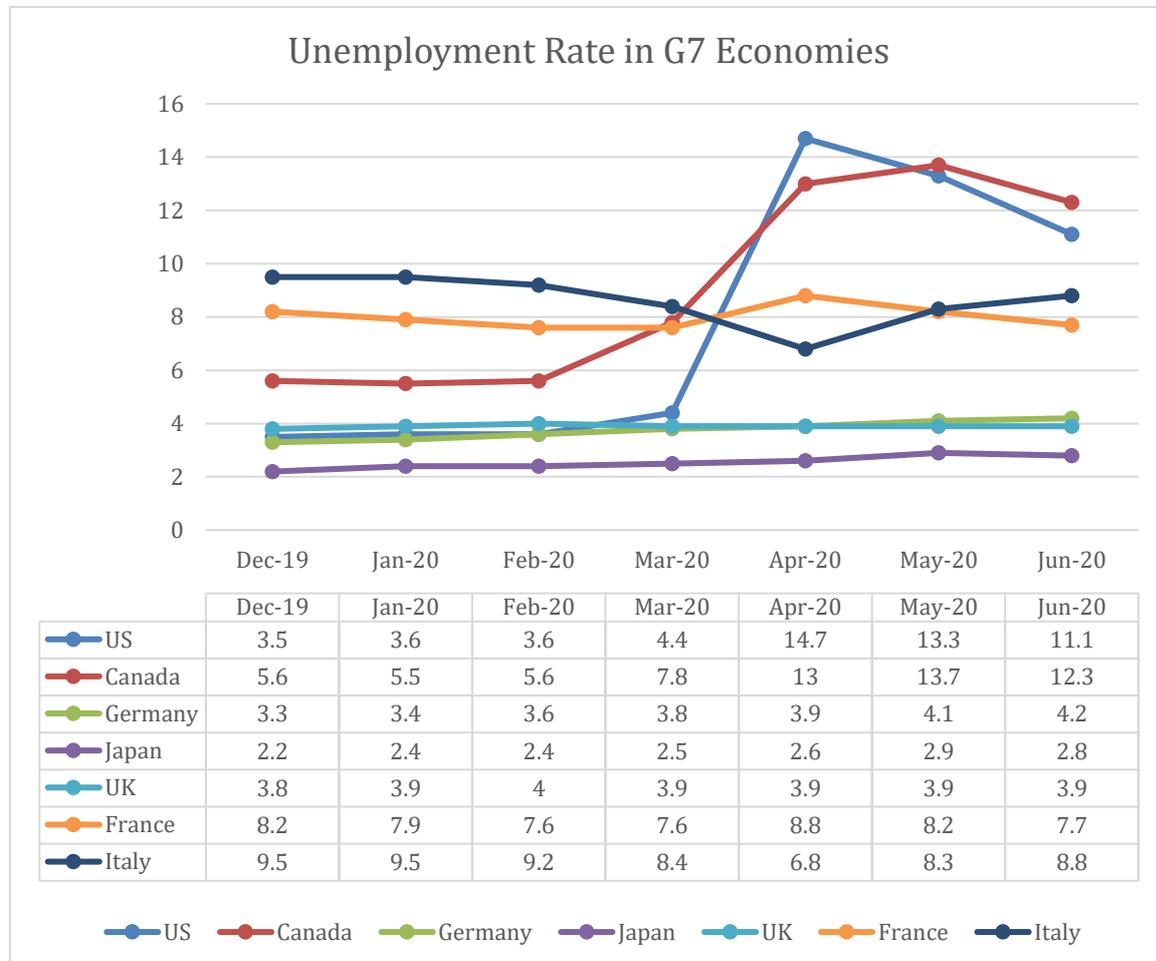


Figure 6.2.2: Unemployment rate in G7 economies

With the economy being impacted in such a negative progress, it is expected that the people will cut expenditure on luxurious products and only spend on necessities. The recovery for the global economy will undoubtedly take some time and the big players such as the governments, multinational firms and organisations have a significant role in accelerating the recovery and reshaping the future economy. The people will have to adjust to the accelerated reformation in the economy and adapt to the new normal after the global crisis. Some economical activities are expected to have revolutionary changes such as trending preferences of digitisation in the retail industry. Both corporations and governments play a catalytic role in pushing for a new world upon demand from the market and general public preference.

7 THE BUSINESS WORLD

7.1 Acceleration of Digitisation

COVID-19's catastrophic event prevents people from traveling, and creates numerous stringent regulations. As a result, clients, organizations and businesses now wish to implement the usage of digital signatures as an alternative to traditional wet-ink signatures when signing documents in order to maintain remotely to work. The market for digital signatures is set to reach \$4.95 billion by 2023. In 2019 North America was the largest digital signature market region. However, the fastest-growing regions in the projected timeline are expected to be Asia-Pacific and Europe. Several nations have drafted laws and regulations that assign legal effect to digital signatures to ensure authenticity and security, such as the Indian IT Act 2000 (Report Linker, 2020).

For example, enforcement in Indonesia during COVID-19 has allowed clients to take the following actions (Backer McKenzie, 2020):

- Use of digital signature to execute documents which are only utilized internally and which are not to be filed to Indonesian courts and government institutions
- Using digital signature from certified service providers in Indonesia or registered in Indonesia
- Discussing with the notaries concerned the likelihood of implementing certain documents with digital signature
- Monitoring for submitting or filing of recent updates and regulations from state authorities on execution formality

On top of that, there are some certified Indonesian digital signature providers such as Privyld, Vida and Digisign. Customers can easily access certified private digital signatures providers' websites, and get the additional details on how to sign up and use the signature. Parties may use foreign providers' digital signatures to generate valid contracts and transcripts of any kind which are not subject to a specific statutory form necessity. Commercial agreements among corporate entities such as contract documentation and sales agreements, consumer negotiations such as new retail account opening documents and lease agreements are commonly used (Backer McKenzie, 2020).

Through our questionnaires, we have asked a question of “How often do you go online shopping?” regardless of any items including luxuries, groceries, equipment and others. Malaysians always loved to go shopping in a mall. Most of the shopping malls in Kuala Lumpur such as Mid Valley, One Utama, Sunway Pyramid and others will be filled with shoppers and there were some time that the parking entrances were closed due to no more parking space available during the weekends, especially when there was sales in some shops such as Aeon member days, Buy 1 Free 1 promotion and others. Even so, shoppers would find an alternative using public transport such as bus, train and taxi rides to go physical shopping. Unfortunately, Malaysians would need to prevent their urge to go shopping when the government implemented a lockdown in March. However, due to the modern technology, Malaysians were still able to

shop digitally. There were a lot of online retail shops available in Malaysia such as Shopee and Lazada. Besides that, most of the shops worldwide have already implemented an online store of their brand. Out of the 61 respondents we surveyed, only 13 people shopped online before the pandemic, but the digits switched to 31 after COVID-19 spread through the country. As shown in the graph above, most of the respondents have rated their frequency of online shopping higher after the pandemic compared to before COVID-19 and only a few number of them dropped their rating, it might due to their income being negatively affected during the lockdown.

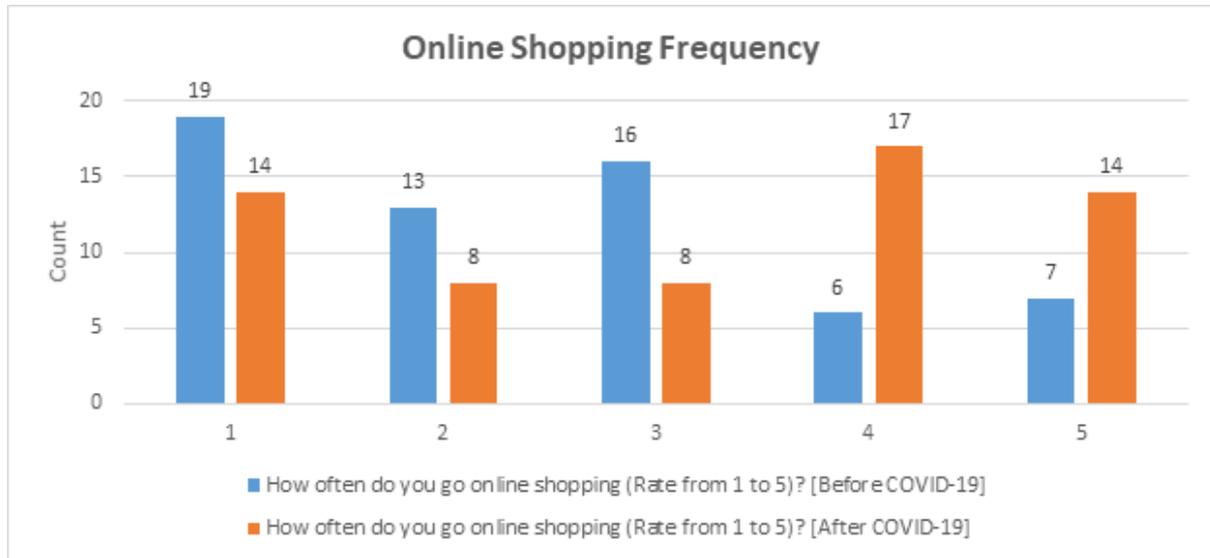


Figure 7.1.1: Online Shopping Frequency

COVID-19 broke out during the Chinese New Year, while most stores closed, citizens instantly turned to shopping online to hoard essential items. Such retail demands were largely met during the lockdown period thanks to the preparation of the Chinese e-commerce industries in terms of supply chain management. As at April 2020, China's total consumer goods retail sales decreased by 16.2 percent compared to last year's same period, while online retail sales increased by 8.6 percent. JD Super, JD's online supermarket, saw its revenue increase by 100 percent during the first day of the 618 Grand Promotion, while internet purchases of fresh groceries rose by 140 percent compared to last year's same promotional day. During the pandemic, young consumers have been given more family commitments. Statistics show that more than 70 percent of consumers born after 1995 have shifted from "buying only for themselves" to "buying necessities for the whole family" since the start of this year. Moreover, when many young adults came back to their homes in China's lower-tier cities from major cities, they assisted their family members to participate in shopping online and to some extent led to the penetration of brand, quality and authentic products into lower-tier urban markets (Yang & Kidron, 2020).

Coronavirus global online traffic impact as of April 2020, by industry

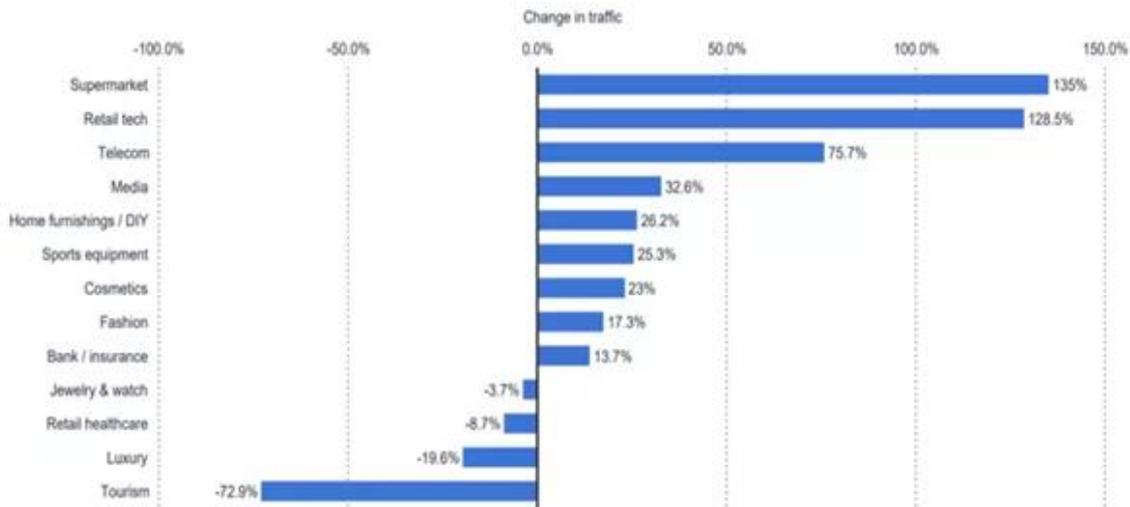


Figure 7.1.2: Coronavirus global online traffic impact as of April 2020

While no-one can forecast what a post-coronavirus reality would look like, advertisers are quite certain: digital channels are more important than ever. Digital platforms are now playing an increasingly vital role, as people keep on isolating themselves and spending more time online. Some firms cut back on advertising or perhaps even lay off the whole marketing team whereas others become more agile and find interesting ways to engage their viewers in these tough moments (Reid, 2020). There were a lot of creative posters and ads related to COVID-19 and quarantine. Some of them are the product of cooperation with creative marketing companies who took use of the condition to get their images in the public eye. Such promotion strategy, also virtual by nature, is a perfect ad and awareness booster for the brands themselves (Hall, 2020). The following examples are some powerful and meaning posters that promote staying at home and social distancing:



Figure 7.1.3: Famous brands promoting social distancing and staying at home through digital marketing

The following are some examples of well-known franchises maintained to build their brand through digital marketing (Nesterenko, 2020):

- Apple TV Plus opened up exclusive access to its original TV shows.
- HBO released 9 original series, 20 films and 9 documentaries, free of charge.
- Netflix introduced a weekly LIVE show “Wanna Talk About It?” regarding how to get yourself cared for during a pandemic.
- National Geographic launched an online, family-friendly home school website with educational materials.
- Metropolitan Museum of Art opened web access to more than 1,600 books of art.
- As at April 2020, Nikon made 10 online photography lessons free.
- Gucci collaborated with Yuko Higuchi and launched a free-to-download digital sketchbook which includes coloring sheets, games and more.

We see in COVID-19 that customers prefer to use contactless payments rather than cash because it eliminates the need for body interaction and is secure, convenient and effective. In the pandemic world, with the rapid move to electronic, contactless and e-wallet transfers as the new standard for the banking and payment needs of consumers. CIMB Group Holdings BHD's consumer banking subsidiary CIMB Bank BHD, in partnership with Visa, has launched the CIMB e Credit Card, a reward-based credit card that gives Bonus Points for every spending made via online and contactless payments, to meet the growing needs of consumers' first physical lifestyles in the COVID-19 pandemic world. Customers have gradually relied on and seen the advantages of e-commerce for vital products and other things that they would have wanted to purchase in a retail store beforehand. The e Credit Card can play an important role in fulfilling the everyday needs of consumers by giving their lives greater convenience and added value in this modern era. The e Credit Card is a core element of the Forward23 strategy of CIMB, namely consumer centricity and sustainability (The Edge Markets, 2020).

Even before the COVID-19 pandemic, the 2003 SARS outbreak had already accelerated China's path to introducing the nation's digital payments and e-commerce. With banks handling transfers and combining their electronic banking into their payment process, they are placing their credibility on the line to maintain e-wallet funds safe for consumers, creating trust in the current scheme. Online payments now form a foundation for the thriving digital economy in China. Contactless payments are possible by scanning a QR code to cab drivers, sellers and even temples and beggars. Daily-essential transactions, such as cell phone bills, insurance, rent or web access, can all be made through digital payments or internet banking. There, governments often accept mobile banking as a means of payment at all rates. In China, digital payments have become essentially a public benefit. Chinese step toward a cash-lite environment has helped maintain quarantines and will help minimize the spread of the virus as the economy restarts. In reality, nonbank electronic payment platforms in China handled RMB250 trillion in 2019, according to the People's Bank of China (PBOC), highlighting the widespread adoption of the platforms (Xiao & Chorzempa, 2020).

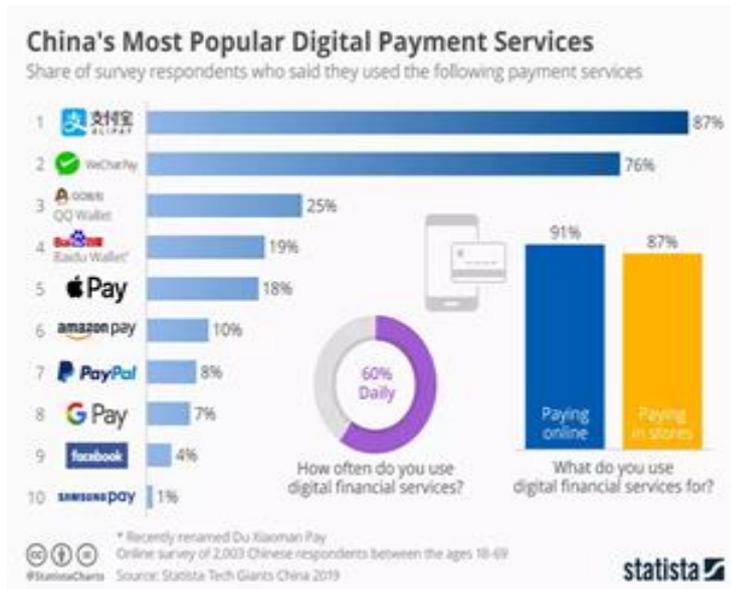


Figure 7.1.4: China's Most Popular Digital Payment Services



Figure 7.1.5: China's Mobile Payment Adoption Beats All Others

7.2 Emergence of Virtual Environment

Back to the 20th century, technology was still in the infancy stage. Most people met, socialized and ran businesses physically when technology was scarce. Although computers, cassettes, DVDs and CDs had been introduced, the world was still not prepared to go virtual entirely. Students and researchers highly depended on physical resources such as books and other materials in libraries. Until then, the first social media site, Six Degrees, had been recognized in 1997 to allow people to make friends online. Due to the invention, social media began to emerge with the rise of social media platforms such as LinkedIn, Facebook and Twitter in the early 2000s.

Young millennials had been introduced to a new door of socialization with the invention of multiple convenient portal electronic devices. And yet, with the declaration of pandemic, social media platforms gained much more popularity than before. Humans are fundamentally social in nature and highly dependent on companions in life. Being self-isolated or self-quarantined indoors during the crisis, people had dedicated their times much more than ever in social media to ease the stress of loneliness which may degrade their mental and physical health. In Figure 7.2.1, it could be easily noticed the upward trend of hours spent in social media in a day. After the outbreak, more than half of respondents spent more than 3 hours in social media daily. The pandemic had pushed more people to register or reactivate their social media accounts, exploiting social media to provide or even replace their needs to socialize.

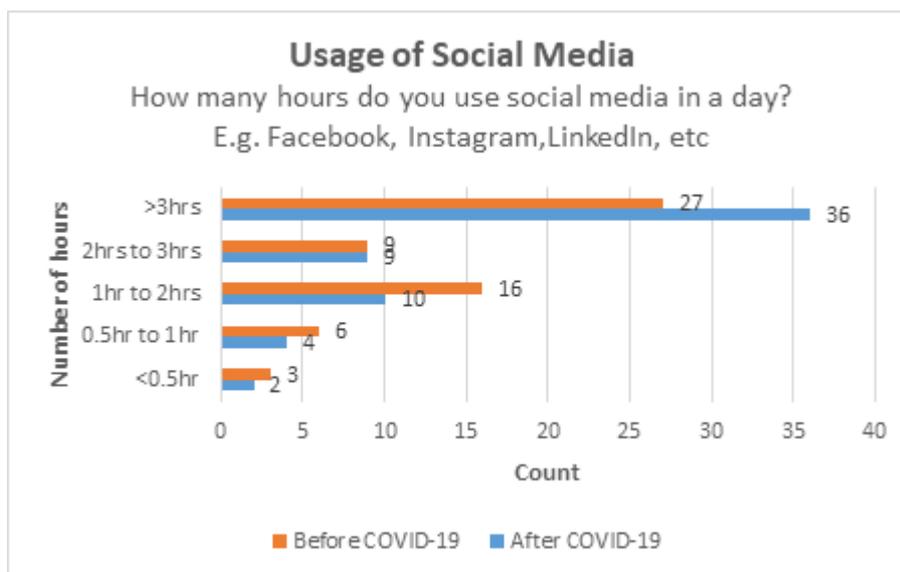


Figure 7.2.1: Usage of Social Media

However, social media as an informal tool may not be suitable for companies, organizations and educational institutions to run their operational activities remotely during the crisis. Instead, they switched their physical meetings in the past to online meetings with the utilization of videoconferencing tools such as Skype, Zoom, Microsoft Teams, Google Meet and more. As shown in Figure 7.2.2, there was a dramatic shift of number of respondents to a high frequency usage of online meeting platforms. While physical interactions among large groups were no

longer feasible, these platforms served as the best alternative to resume activities and perform tasks. As a result, people travelled less frequently and only if deemed necessary for important business deals which required a strong and efficient communication. Looking at Figure 7.2.3, it provides relatively strong evidence of reducing in frequency of travel for business after the pandemic. As most of the respondents were unemployed or still studying and did not perform any business travels in the past, there was a high chance to have wider gaps in reality. Human contact is still reasonably important in providing intimate unique experiences to other individuals, therefore frequency of business travel may stay low for a few years to come but it will never be totally replaced.

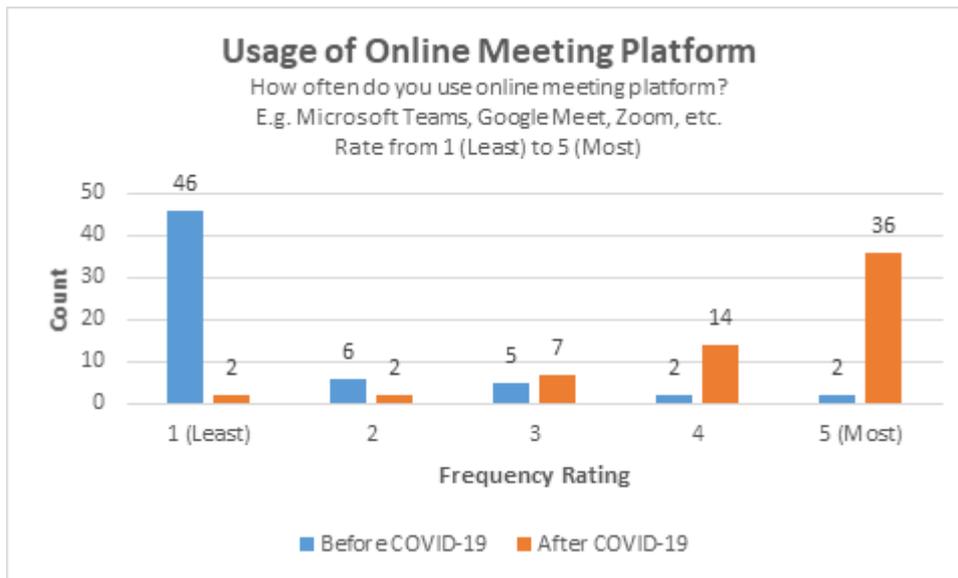


Figure 7.2.2: Usage of Online Meeting Platform

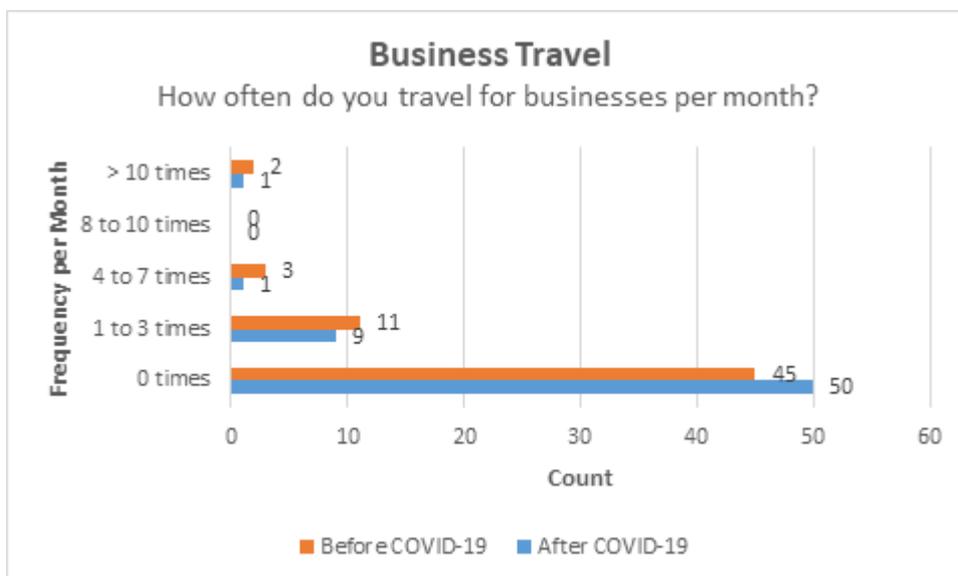


Figure 7.2.3: Business Travel

Looking into the future, it may be suspected that businesses would never return to the same mode before the crisis. People will get used to and more dependable on advanced technology tools for ease and convenience. As depicted in Figure 7.2.4, 31 out of 61 respondents (50.82%) were likely to opt for online meeting platforms after recovery. Inevitably, real-time chat and content sharing features offered by these platforms had substantially supported the smoothness of meetings between clients and workers. High level of openness to virtual meeting experiences had heightened the uncertainties and possibilities of more remote-working options for employees.

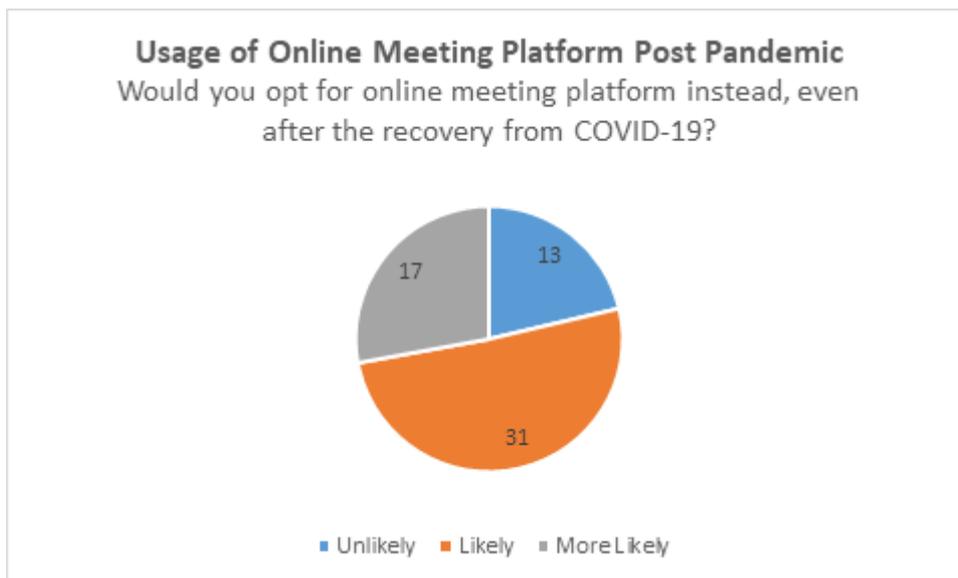


Figure 7.2.4: Usage of Online Meeting Platform Post Pandemic

Less on-site work commitments during the crisis led to a low demand on transportation infrastructure. Besides, people were less willing to travel around due to various movement restrictions set by their countries and considerations on their safety if mingling with outsiders. As shown in Figure 7.2.5, respondents had reduced their spending on travel significantly, with 30 out of 61 respondents expressed they were unlikely to spend on travel currently.

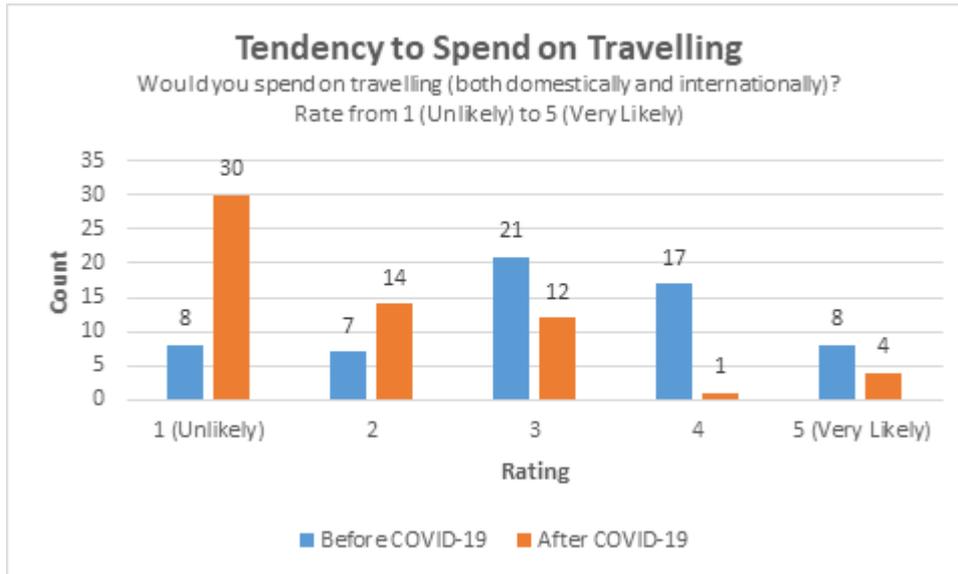


Figure 7.2.5: Tendency to Spend on Travelling

Amid the crisis, the public, especially those who were more vulnerable to the disease such as elders and those who had underlying medical conditions, were urged to practice social distancing to protect themselves from contracting the disease. Public transport such as buses and trains led to doubts of social distancing adequacy and anxiety of being infected while staying collectively with others in the designated enclosed spaces for a period of time. Subsequently, the public was more likely to opt for more private transportation options. From the survey performed, respondents tend to rely more on private vehicles and reduce their frequency of taking public transportation after the pandemic (Figure 7.2.6 & 7.2.7). Over half of respondents, 42 out of 61, did not take any public transport at all in the unprecedented times facing the pandemic. Safety became the utmost concern of the respondents and they would rather drive themselves to their destinations.

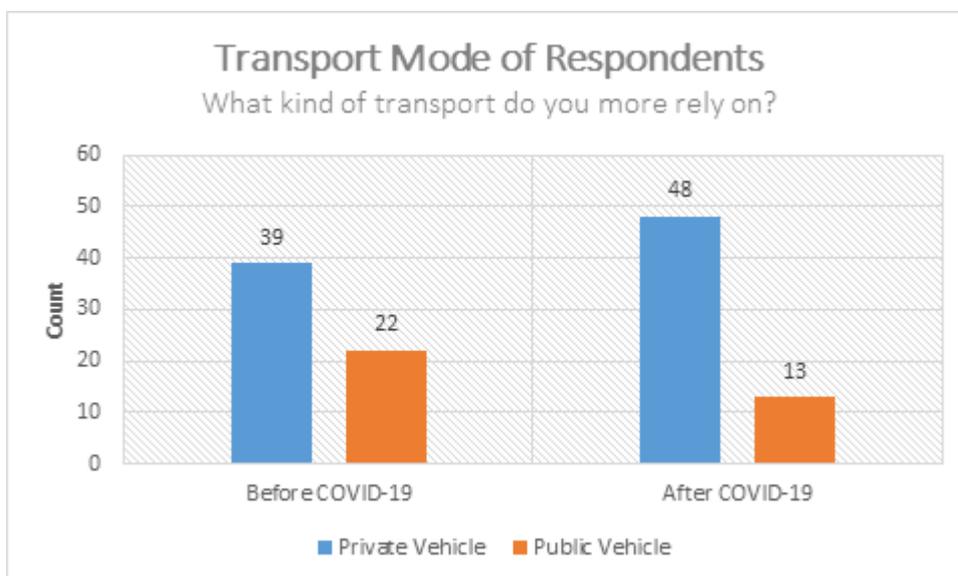


Figure 7.2.6: Transport Mode of Respondents

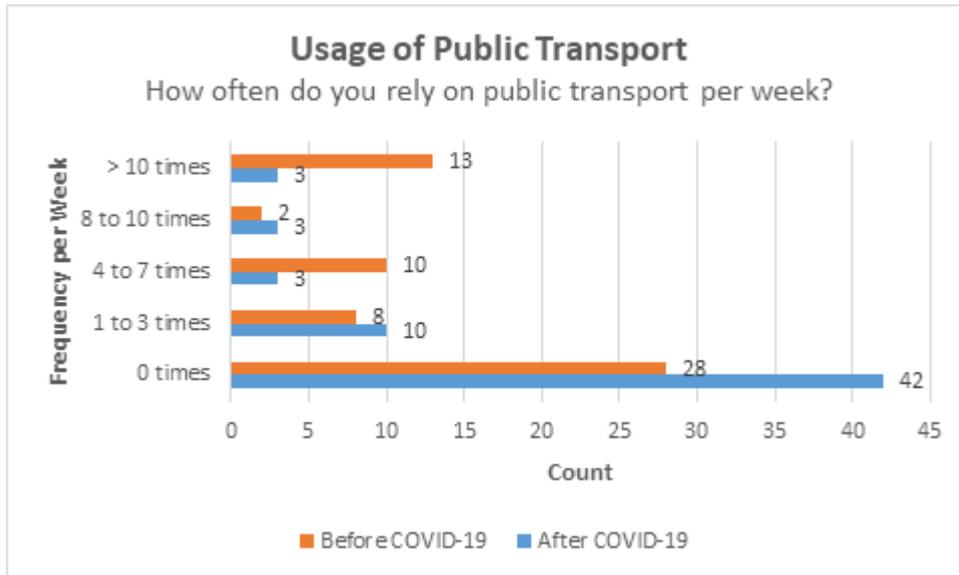


Figure 7.2.7: Usage of Public Transport

7.3 Dietary Lifestyle

To summarize our 61 respondents, only 3 people have maintained their dietary lifestyle whereas 44 people have rated that their dietary lifestyle changed significantly since the MCO was implemented. This new condition could threaten the management of a balanced, diverse diet and routine regular exercise. For example, reduced accessibility to everyday shopping can lead to a decrease in the consumption of fresh meals like fruit and vegetables, instead in favor of heavily processed foods such as fast foods, unhealthy snacks and treats, which appear to be high in fats, sugars and salt (Di Renzo, 2020). In addition, mental and emotional reactions to an occurrence of COVID-19 can raise the likelihood of developing unhealthy eating behaviors (Wang et.al, 2020). It is well known that unpleasant emotional interactions can contribute to overeating (Evers, 2018). Furthermore, depression sensations, which can result from staying at home for a prolonged amount of time, are frequently associated with overeating as a way to avoid monotony (Havermans, 2015). On the other hand, stressful experiences, due to physiological stressful events that imitate the internal sensations associated with feeding-induced satiety, can contribute to eating restriction. (Di Renzo, 2020). To understand more of their dietary lifestyle, further questions are summarized below.

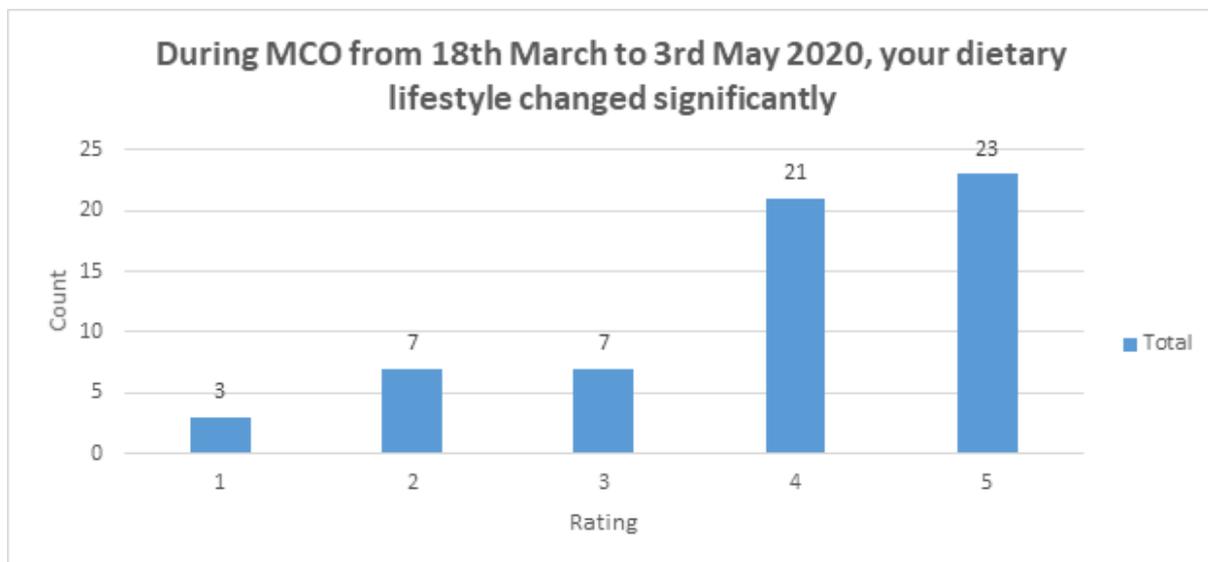


Figure 7.3.1: Change of dietary lifestyle

By looking at the survey, there is a surge of people cooking at least 8 times per week, from only 8 people to 32 people after the pandemic was introduced. When Malaysia’s Prime Minister, Muhyiddin Yassin announced that the MCO will be implemented on the 18th March, most of the Malaysians went out for panic groceries shopping to stock up over the weekend in fear of the spread of the virus. Pictures of empty shelves at Village Grocer and at Tesco Stores started to go public. Grocery stores have had increasingly high crowds and long waits. Surveys by the New Straits Time (2020) showed that rice, cooking oil and instant noodles were all sold out in supermarkets. We believe that the panic buying was to prevent the contraction of the virus by staying at home to prepare their own meals. Many have turned into home cooks and there were

several home cooks that shared their recipe online so that everyone could earn from them. For instance, a 28-year-old Malaysian home cook has gained fame, earning over 800,000 Youtube subscribers as of August 2020, as well as the support of Prime Minister Muhyiddin Yassin and celebrity chef Redzuawan Ismail. At her Youtube channel, she presents nutritious dishes using simple cooking devices with her husband (Sukumaran, 2020). An online survey done by Malay Mail in June from a total of 1,100 respondents nationwide, a staggering 85 percent of respondents said they had prepared their regular food at home and also showed that, with 72 percent of respondents doing so, those who spent their time cooking at home did not mind making meals that needed long preparation time. However, 47 per cent also said they only had easy-to-cook meals such as microwave meals, 30% said quick meals were the chosen option, and 20% selected fast foods such as burgers and fries (Tee, 2020).

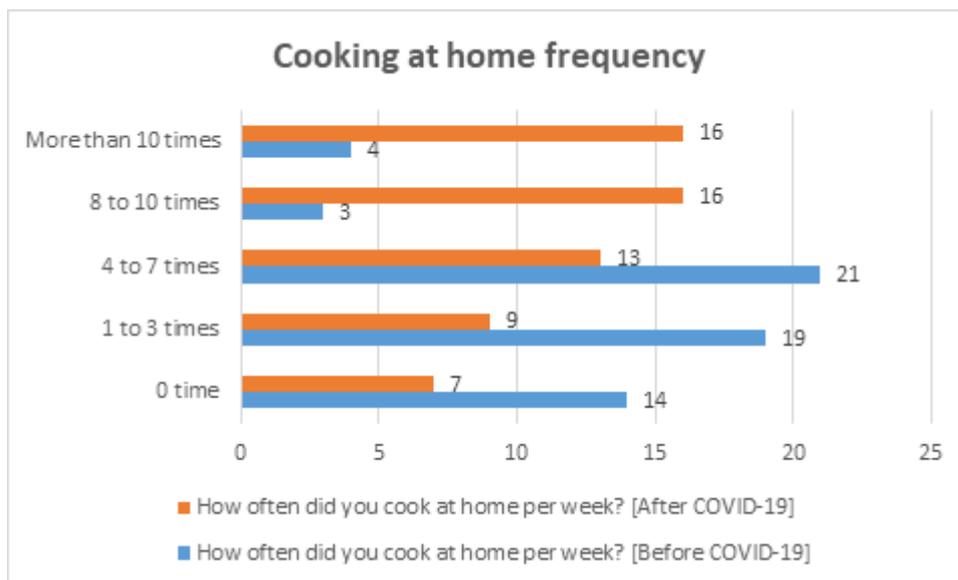


Figure 7.3.2: Cooking at home frequency

Out of the 61 respondents, none of them have ordered food delivery more than 7 times per week before the pandemic but there was a transition to 4 people that do after the MCO was implemented, 34 people that did not order any food delivery before has dropped to a number of 21 people and there were 4 only people who ordered 4 to 7 food deliveries per week, has increased to a number of 11 people. This is because the convenience of food delivery is a welcome comfort - particularly for those who don't have the equipment or the opportunity to prepare their own meals. GrabFood and Foodpanda reported a rise in sales with some businesses recording an improvement in sales of 30 per cent during the MCO's initial period. For McDonald's Malaysia, since the launch of the MCO, its McDelivery and drive-thru services have seen a 19 per cent rise. Since the virus is at risk of contracting, the government has enforced stringent SOPs for food distribution providers so that customers and the driver can be protected during the encounter. GrabFood and Foodpanda have required drivers to drop off meals without having to make interaction with customers. McDelivery pick-up points for customers and those from local transport providers have been split. While risky, the ongoing operations of restaurants

and food distribution companies undoubtedly provide staff and enterprises with an economic upturn that would otherwise be suffering extreme hardship. (The Asean Post, 2020)

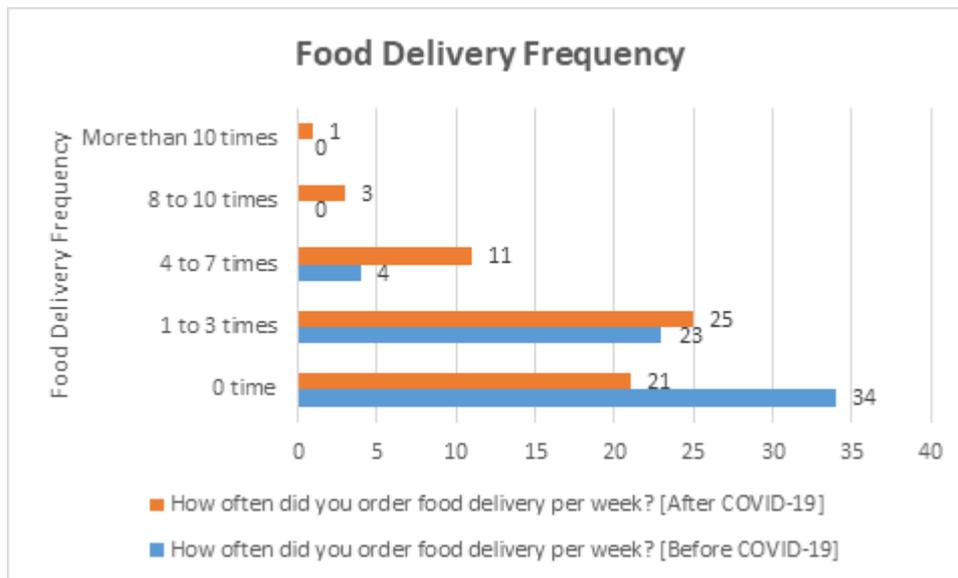


Figure 7.3.3: Food Delivery Frequency

As expected, the number of people who do not take out from eateries have increased whereas the number of people who often take out from eateries have decreased, a result which does not contradict our observation of frequency of cooking at home above. This might be due to the strict lockdown implemented by the government, roadblocks by the police and military and unable to travel more than 10km radius from residency. However, Dr. William Schaffner, a professor of medicine in the department of infectious diseases at the Vanderbilt University School of Medicine in Nashville, Tenn indicated even though COVID-19 is still unknown to us, coronaviruses are not, and with all the studies conducted on these diseases, there has never been any knowledge involving transmission from food and is extremely impossible unless the customer inhales their meal. The virus is mainly dangerous to us when it sticks to surfaces in our respiratory system, not when we ingest it by mistake. In the upper reaches of the nose, the virus seems to be latching onto cells, a position food that doesn't touch. The acid in our stomach will destroy the virus that has made its way into our gastrointestinal tract. Instead of worrying about the food itself, sanitization and social distancing are the most crucial ways when ordering takeout (Kritz, 2020). While following all the safe precautions, consumers can feel safe while going out for a takeout.

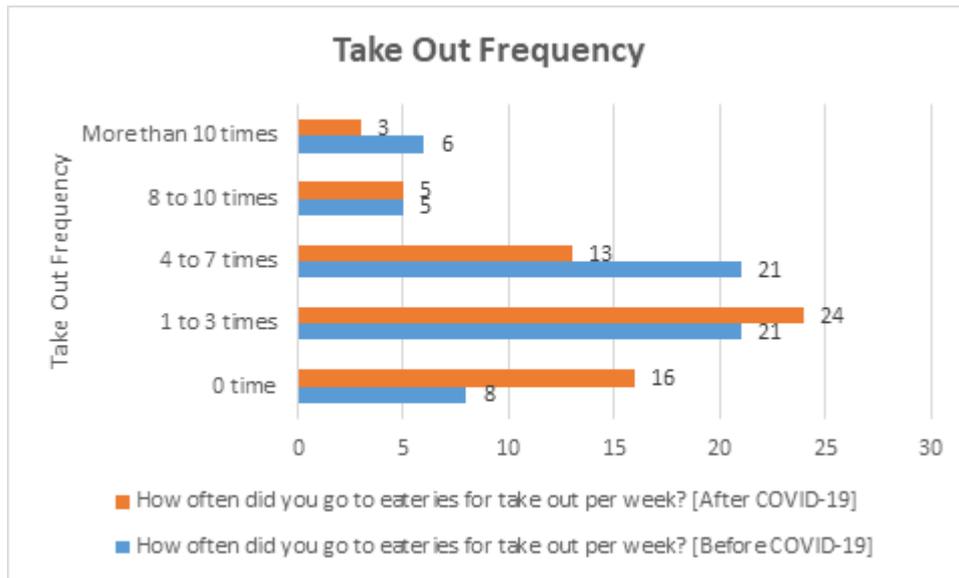


Figure 7.3.4: Take Out Frequency

Out of the 61 respondents we have received, only 12 people still go to their favorite eateries to dine in and 35 people do not dine in as much anymore since the strict SOP was implemented. Ever since the virus first started spreading through the countries, restaurants have either closed down their dine in business, decreased their number of dining tables, decreased the number of people per dining table or totally closed down their business. Therefore, most of the consumers would be required to queue up for a long time before entering into the famous eateries, get their body temperature and contact information recorded. During the random check by police, the restaurant and customers will be fined RM1,000 for each customer that does not follow the strict SOP, hauled to court or even ordered to be closed down (Malay Mail, 2020). Most of the customers get fed up by the long procedure just to have a meal and so give up on dining in.



Figure 7.3.5: Dine In Decision

Just recently on the 9th of August, one of the most famous burger franchises in Malaysia, myBurgerLab that has been serving more than just burgers since 2012 received a complaint from a consumer arguing that social distancing within family members does not make any sense. MyBurgerLab has been accused of being uneducated, misinformed, stubborn and illogical. Since the MCO in Malaysia has been implemented, myBurgerLab has only been able to hover just above breakeven profit on most days.

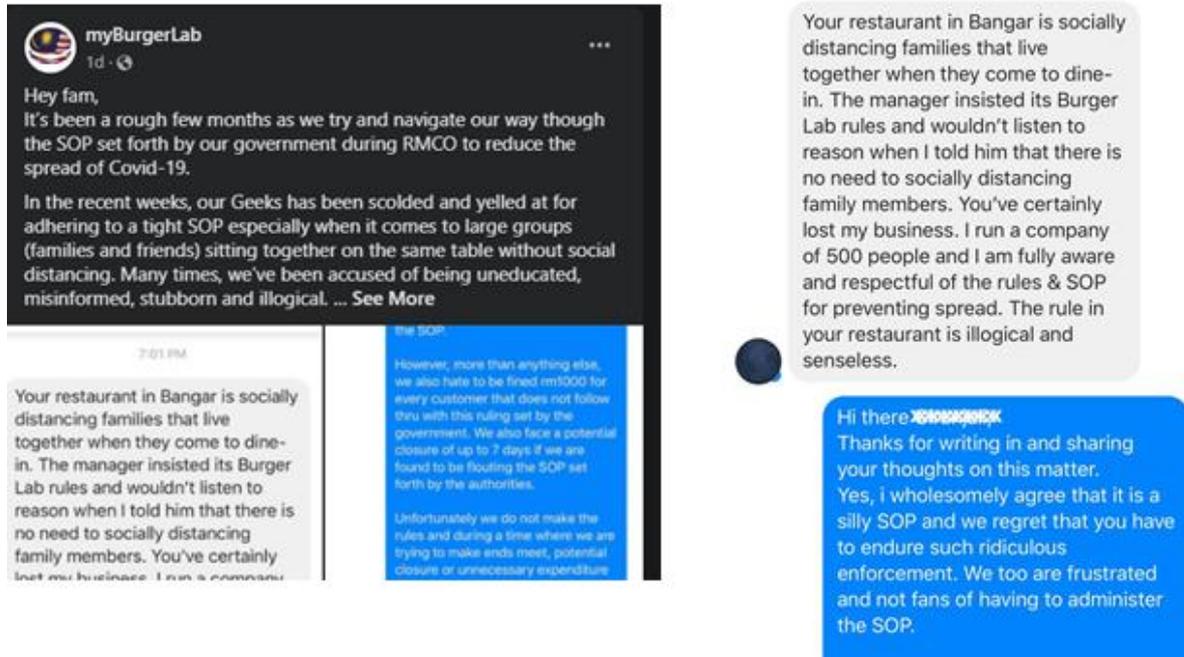


Figure 7.3.6: myBurgerLab received complaints from arrogant customer

7.4 Social Protection

The COVID-19 pandemic brought a profound impact to the whole insurance industry when individuals and businesses had been posed at a certain level of risk. The transmission rate of COVID-19 was higher than predicted, with a median of 5.7 for its R0 according to a study in Emerging Infectious Diseases. This implied that each infected individual can potentially transmit the virus to 5 or 6 individuals (Ramirez 2020). The situation had gone even worse when the World Health Organization (WHO) reported COVID-19 incubation period could range from 2 to 10 days (Worldometers, 2020).

As such, the insurance and takaful industry in Malaysia had set up a COVID-19 test fund to subsidize the cost of the test for policyholders who had been referred by registered medical professionals to undergo the test. Apart from relief measures such as deferred payment of premiums, Malaysia’s leading life insurers provided additional complementary coverage specific to the pandemic for their existing policyholders, such as hospitalisation benefit and death benefit (Teoh, 2020). The public had become extra aware of the importance of insurance during the crisis when it came to its roles and purposes. As could be seen in Figure 7.4.1, the number of respondents who rated insurance as very important to them leaped from 25 before the crisis to 34 after the crisis.

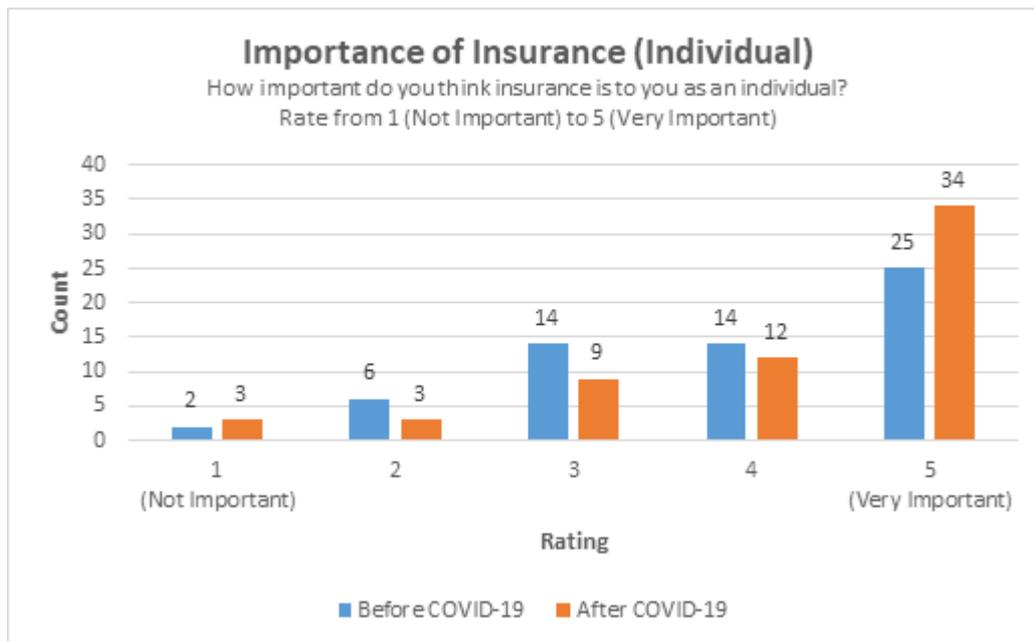


Figure 7.4.1: Importance of Insurance (Individual)

As most of the respondents were still young and in the middle of their twenties or thirties, they were more aware of the importance of insurance to society compared to themselves in general. In the context of insurance roles to the society (Chart 7.4.2), almost all respondents rated 3 and above with a slight increasing trend to 5 (very important) when time went by, implying the insurance industry had built a strong foundation in the society even before the pandemic. Group

insurance policies such as workmen’s compensation provides protection to employees of the insured against any harms arising while risk of employees exposed to the virus in the workplace may be covered if it was proven true (Teoh, 2020). As a result, insurers may face an uptick of workmen’s compensation claims from essential businesses such as health care, but a decline in claims from non-essential businesses while employees were reporting to work at home (Williams, 2020).

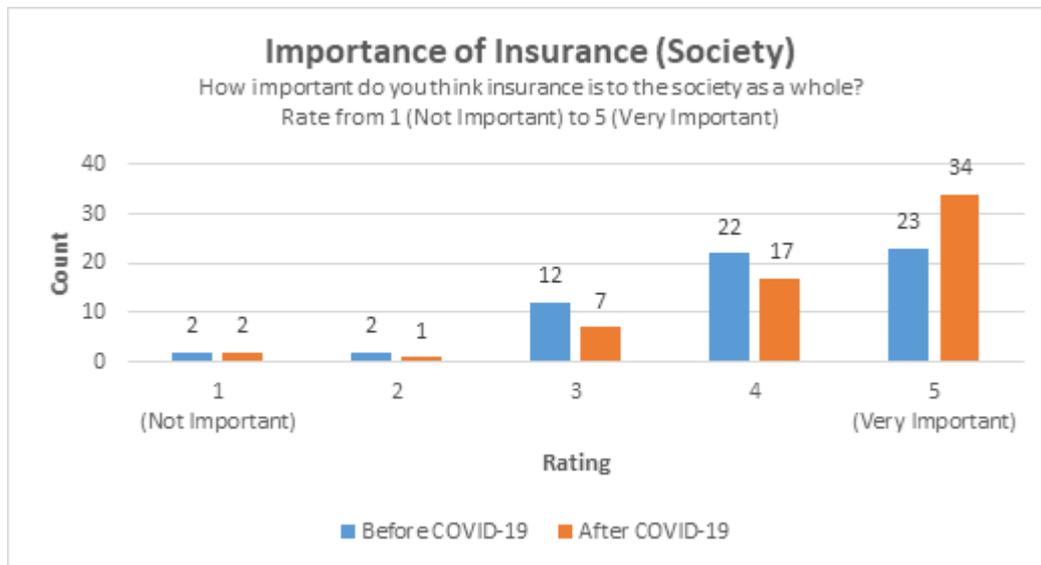


Figure 7.4.2: Importance of Insurance (Society)

Although health and life insurers in Malaysia had offered special supplementary COVID-19 term coverages for their policyholders at no cost, it was still uncertain whether there will be a comprehensive life insurance plan to cover the pandemic risk in the future. As shown in Figure 7.4.3, more than half of the respondents, 39 out of 61, were not aware of any insurance products that covered pandemic risk before the crisis. In contrast, respondents began to be aware of how they could be protected from financial losses due to the pandemic after the crisis. While no vaccines were invented, people started to fear how the pandemic will end up and bring a negative impact to their lives. Threats appeared to be more imminent when the emotion of fear could be contagious, triggering them to look for insurance products that offered pandemic coverage to provide them with a peace of mind.

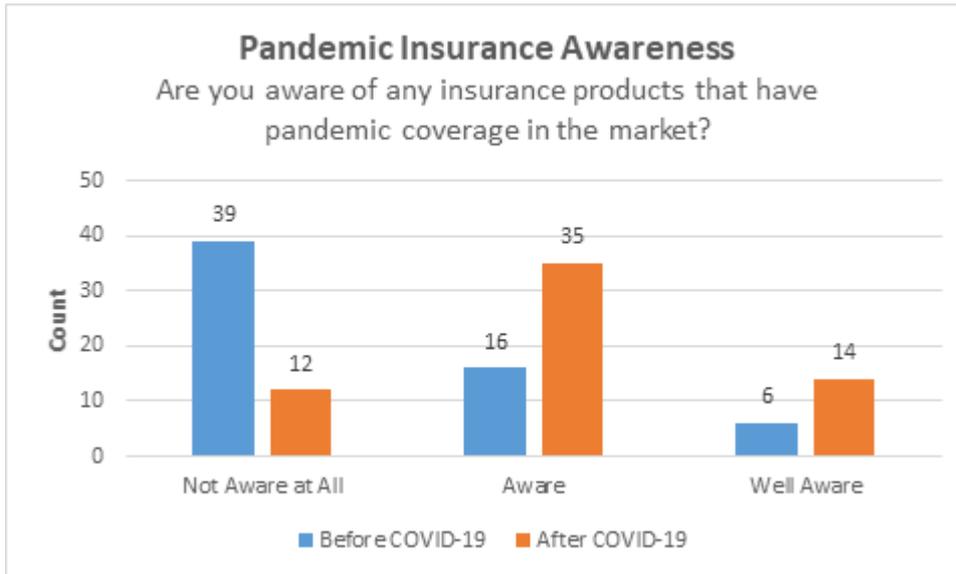


Figure 7.4.3: Pandemic Insurance Awareness

Overall, insurance roles in social protection had been magnified by the pandemic and subsequent initiatives launched by insurers to provide financial relief for their policyholders. According to Figure 7.4.4, respondents had a higher tendency to purchase insurance products with specific coverage in the pandemic. It may be suspected to have a surge in demand for insurance products in the near future if the insurance industry continues to serve for the best interest of the public.

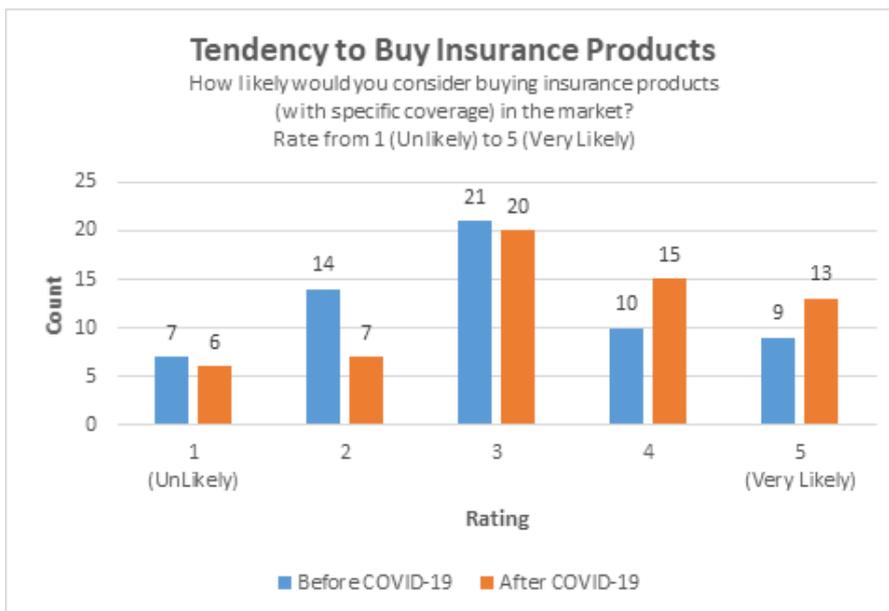


Figure 7.4.4: Tendency to Buy Insurance Products

8 CONCLUSION

In the era of digitisation, the evolution of the world has been accelerated in an unprecedented manner. With information being accessible easily through the internet, everything is at our fingertip. It has become so easy to spread influence to any targeted community, even in an anonymous position, for one's benefits or purposes. This alarmed the importance of source verification for every piece of information shared over the web. Tech giants across the globe have been working to provide information from trusted sources, reducing the spread of false information on their platforms. Whether or not it is required by the regulations of an international or local governing body, it is an essential step or progress to keep our social system intact. Our endless pursuit for convenience has put us in a situation where everyone must have an online existence and they would surely leave digital footprints in everyday lives. This is undeniably a breakthrough in our lifestyles, giving rise to a new way of living for the modern human civilisation. At the same time, it poses new opportunities, new concerns and new threats to our lives.

Being hit by COVID-19 has unearthed the problems that have been troubling the community as a side product of uncontrolled progress of human civilisation. Capitalisation which emphasised on profits instead of community development and sustainability brought imbalance development to many countries. Countries that have a high proportion of GDP generated from a single industry due to capitalisation have suffered greatly during this pandemic. When profit gives all purpose in making progress, we lose our way in ascending for the betterment of humanity. Underdeveloped health care system in multiple countries, education focused too much on technical skills instead of humanitarian development and understanding, unachieved social harmony and racial discrimination, these are the underlying problems that we have been living with and not addressed or solved with full effort. Now, they have all surfaced in hard times as such, forcing us, including the authorities to tackle it head on for the survival of the nation.

Aristotle once said "man is by nature a social animal", however, with social distancing and other containment measures, our freedom to socialise physically with other people is helplessly restricted. The disease has left us no option but to widen the gap between people that we have been trying to close for decades in global effort. Despite facing such agonising news, it is human nature to thrive, solve problems and obtain alternatives in achieving our needs. A surge in demand for online platforms is a natural response to this situation. This directly promotes digitisation that the government and private sectors have been working for decades and further accelerated its progress by demand. The banking and insurance channels, government portals and other long-existing systems are all improving in this direction, giving birth to terms such as FinTech, InsurTech, Big Data Analytics, etc.

The future of our society relies on the desires deep within ourselves. Our individual preferences and motives will form a collective direction by majority which indirectly contribute to shaping the next era. With this pandemic, the world has awakened and the people are alarmed of the importance of self-control in consumption, environmental friendly innovation and sustainable

development. The pandemic gave us an opportunity for redirection in this long march of industrial revolution that has always put profit efficiency over environmental sustainability. This could be the silver lining as we move on together to recreate a better future.

Seeing the changes happening on a global scale, the businesses had changed significantly due to a major shift of consumer behaviour resulting from the pandemic. A primary barometer of customer experiences is how businesses meet their needs with empathy, care and concern. An excellent customer experience provides a good image to the businesses, especially those in the service industry. Take the insurance industry as our first example, initiatives taken by insurers to relieve financial stress of their policyholders such as providing supplementary COVID-19 coverage had substantially increased public awareness of the importance of insurance in the survey.

Besides, fears had induced shoppers to hoard necessary items such as toilet rolls, dry food and masks when the COVID-19 outbreak was declared by the World Health Organization (WHO) as a pandemic last March 11. Long queues and shortage of supplies in physical retail stores eventually led shoppers to opt for online shopping. Online shopping provides ease and convenience with its contactless payment and delivery services which could help prevent shoppers from unnecessary body interactions. It may be anticipated that consumer online spending behaviour will persist and bring higher penetration of brand, quality and authentic products in online shopping platforms after the pandemic is over. Not only in online retails, similar pattern of shifting services online could be observed in the food and beverages industry. Due to the stringent measures in dine-in restaurants and concerns over their own safety, food lovers were more likely to satisfy their appetites by cooking at home or ordering food delivery, instead of dining in.

While in the travel and tourism industry, travellers tend to reduce their spending. According to the survey, the number of respondents travelling domestically and internationally, either travel for business or vacation, had been substantially reduced due to the crisis. Since the outbreak, most non-essential businesses have gone virtual by working from home, with online meeting platforms as a tool to replace the need for business travels to meet clients. Border closure in some countries and deteriorated work income had urged tourists to halt travelling and stay at home in the pandemic. Meanwhile, the public transportation sector had also been majorly affected with lower demand from remote-working employees and concerns over safety on boarding. As a result, the industry took incentives such as virtual reality experiences to promote and increase the confidence of travellers to travel again after the pandemic.

When there is risk, there is opportunity. While the pandemic has posed bankruptcy risks to businesses, it offers good timing for businesses to transition themselves digitally and innovatively. Facing uncertainties, it is time for us to reshuffle our priorities in life, making the best out of ourselves to achieve self-goals and bring good will to the society. In the forefront of technology, building a good relationship with families and friends shall not be neglected or replaced by any means, it is essential for humans to move and fight as a whole against the COVID-19 outbreak.

9 APPENDICES

9.1: Survey Form (Questions)

IMPACT OF CONTAGIOUS DISEASE ON DIFFERENT SCALE (GENERAL HUMAN BEHAVIOR)

Your response will be used to perform analyses in MASA Research Initiatives.

MASA Research Initiatives is an intensive research programme with a duration of 2.5 months, from the first week of July till the third week of September 2020. MASA Research Initiatives provides students exclusive experience on research applications with the guidance of research and analytics professionals from various fields, enabling them to seek out further and gain more exposure before stepping out of university and into work community. It also enables students to have an advantage in searching for jobs that related to data analytics or any field which require some research-related skills.

This survey consists of 4 parts:

1. Financial Management
2. Social Protection
3. Emergence of Virtual Environment and Acceleration of Digitization.
4. Dietary Lifestyle

If you have any enquiry, please feel free to approach us through general@masassociation.org
Thank you!

*Required

Age *

As at 31st December 2020 (Take 2020 minus your birth year)

Your answer _____

Gender *

- Male
- Female

Financial Management

Working status *

- Employee (Private sector)
- Employee (Public sector)
- Employer
- Self-employed
- Unemployed/ Studying

What is the range of your income? *

- Less than RM3,000
- RM3,000 to RM6,000
- RM6,000 to RM10,000
- RM10,000 and above

How is your income affected by this pandemic? *

- Positively (Increases)
- Negatively (Decreases)
- Not affected

How is your monthly savings affected by this pandemic? *

- Positively (Increases)
- Negatively (Decreases)
- Not affected

What is your tendency to spend after COVID-19? *

- Higher
- Lower
- Neutral

Would you spend on travelling (both domestically and internationally)? *

	1 (Less likely)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are the non-essentials that you would not abandon after COVID-19? *

- Entertainment
- Travel
- Clothing and accessories
- Books
- Sports equipment
- Other:

Social Protection

How important do you think insurance is to you as an individual? *

	1 (Not important)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important do you think insurance is to the society as a whole? *

	1 (Not important)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you aware of any insurance products that have pandemic coverage in the market? *

	Not aware at all	Aware	Well aware
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely would you consider buying insurance products (with specific coverage) in the market? *

	1 (Not likely)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Emergence of Virtual Environment and Acceleration of Digitization

What kind of transport do you more rely on? *

	Private Vehicle	Public Vehicle
Before COVID-19	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>

How often do you rely on public transport per week? *

	0 time	1 to 3 times	4 to 7 times	8 to 10 times
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you travel for business per month? *

i.e interstate / international

	0 time	1 to 3 times	4 to 7 times	8 to 10 times
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many hours do you use social media in a day? E.g. Facebook, Instagram, LinkedIn, etc? *

	< 30 mins	30mins to 1hr	1hr to 2hrs	2hrs to 3hrs
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you go online shopping (Rate from 1 to 5)? *

	1 (Least)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you use online meeting platform? E.g. Microsoft Teams, Google Meet, Zoom, etc. (Rate from 1 to 5) *

	1 (Least)	2	3	4
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Would you opt for online meeting platform instead, even after the recovery from COVID-19? *

Unlikely
 Likely
 More likely

Dietary Lifestyle

During MCO from 18th March to 3rd May 2020, your dietary lifestyle changed significantly? *

i.e changing from eating out to cooking alone, food delivery etc.

1 2 3 4 5

Highly Disagree Highly Agree

How often did you cook at home per week? *

	0 time	1 to 3 times	4 to 7 times	8 to 10 times
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often did you order food delivery per week? *

	0 time	1 to 3 times	4 to 7 times	8 to 10 times
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often did you go to eateries for take out per week? *

	0 time	1 to 3 times	4 to 7 times	8 to 10 times
Before COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After COVID-19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After the CMCO was lifted on 9th June 2020, how often do you still go to your favorite eateries for dine in? *

1 2 3 4 5

Not at all Very Often

How does the current eateries SOP affect your decision to dine in your favorite eateries? *

1 2 3 4 5

Not Affected Highly Affected

9.2: Reported COVID-19 Cases from Worldometer

Data accessed on 11 August 2020 8.13pm GMT+8.

No.	Country	Total Cases	Total Deaths	Total Recovered	Active Cases	Total Cases/1M pop	Deaths/1M pop	Total Tests	Tests/1M pop	Population
	World	20,283,120	739,795	13,207,480	6,335,845	2,602	95			
1	USA	5,251,997	166,201	2,716,593	2,369,203	15,857	502	66,179,761	199,806	331,219,304
2	Brazil	3,057,470	101,857	2,163,812	791,801	14,373	479	13,231,548	62,200	212,727,180
3	India	2,271,586	45,388	1,584,162	642,036	1,644	33	25,281,848	18,300	1,381,493,158
4	Russia	897,599	15,131	703,175	179,293	6,150	104	31,000,000	212,414	145,941,605
5	South Africa	563,598	10,621	417,200	135,777	9,490	179	3,267,494	55,018	59,389,738
6	Mexico	485,836	53,003	327,993	104,840	3,764	411	1,097,077	8,499	129,080,955
7	Peru	483,133	21,276	329,404	132,453	14,631	644	2,590,078	78,436	33,021,340
8	Colombia	397,623	13,154	221,485	162,984	7,805	258	1,942,730	38,136	50,942,186
9	Chile	375,044	10,139	347,342	17,563	19,601	530	1,867,367	97,593	19,134,305
10	Spain	370,060	28,576	N/A	N/A	7,915	611	7,472,031	159,806	46,756,846
11	Iran	331,189	18,800	288,620	23,769	3,938	224	2,736,514	32,535	84,109,372
12	UK	311,641	46,526	N/A	N/A	4,588	685	18,605,095	273,903	67,925,918
13	Saudi Arabia	289,947	3,199	253,478	33,270	8,315	92	3,872,599	111,052	34,871,848
14	Pakistan	285,191	6,112	261,246	17,833	1,288	28	2,165,811	9,785	221,342,804
15	Bangladesh	263,503	3,471	151,972	108,060	1,598	21	1,287,988	7,812	164,869,319
16	Argentina	253,868	4,764	174,974	74,130	5,611	105	856,055	18,922	45,241,412
17	Italy	250,825	35,209	202,248	13,368	4,149	582	7,276,276	120,365	60,451,600
18	Turkey	241,997	5,858	224,970	11,169	2,866	69	5,326,035	63,076	84,438,244
19	Germany	218,514	9,265	198,900	10,349	2,607	111	8,586,648	102,449	83,814,180
20	France	202,775	30,340	82,836	89,599	3,106	465	4,279,588	65,547	65,289,880
21	Iraq	153,599	5,464	109,790	38,345	3,810	136	1,165,049	28,898	40,315,913
22	Philippines	139,538	2,312	68,432	68,794	1,272	21	1,793,079	16,340	109,738,661
23	Indonesia	128,776	5,824	83,710	39,242	470	21	1,731,634	6,324	273,839,956
24	Canada	120,132	8,987	106,355	4,790	3,180	238	4,505,218	119,253	37,778,634
25	Qatar	113,262	188	109,993	3,081	40,338	67	524,466	186,789	2,807,805
26	Kazakhstan	100,164	1,269	73,702	25,193	5,328	67	2,183,308	116,126	18,801,121
27	Egypt	95,666	5,035	53,779	36,852	933	49	135,000	1,317	102,537,651
28	Ecuador	94,701	5,932	78,608	10,161	5,359	336	267,795	15,154	17,671,754
29	Bolivia	91,635	3,712	30,823	57,100	7,839	318	194,155	16,608	11,690,199
30	Israel	85,354	619	60,019	24,716	9,280	67	1,970,047	214,192	9,197,590



31	China	84,712	4,634	79,284	794	59	3	90,410,000	62,814	1,439,323,776
32	Ukraine	83,115	1,951	44,934	36,230	1,902	45	1,179,434	26,987	43,703,002
33	Sweden	82,972	5,766	N/A	N/A	8,210	571	863,315	85,424	10,106,283
34	Oman	82,050	533	76,720	4,797	16,026	104	309,212	60,395	5,119,870
35	Dominican Republic	80,499	1,328	44,910	34,261	7,413	122	297,492	27,394	10,859,836
36	Panama	75,394	1,664	49,510	24,220	17,444	385	252,381	58,394	4,322,025
37	Belgium	74,620	9,879	17,792	46,949	6,435	852	1,872,714	161,506	11,595,289
38	Kuwait	73,068	486	64,759	7,823	17,083	114	539,461	126,120	4,277,349
39	Belarus	69,005	592	65,219	3,194	7,303	63	1,377,540	145,787	9,448,967
40	Romania	63,762	2,764	30,585	30,413	3,317	144	1,404,845	73,083	19,222,629
41	UAE	62,966	358	56,961	5,647	6,358	36	5,627,515	568,242	9,903,385
42	Netherlands	59,194	6,157	N/A	N/A	3,454	359	1,079,860	63,005	17,139,169
43	Guatemala	56,987	2,222	45,589	9,176	3,175	124	181,801	10,128	17,950,526
44	Singapore	55,353	27	49,609	5,717	9,453	5	1,474,372	251,796	5,855,434
45	Poland	52,961	1,821	37,150	13,990	1,400	48	2,257,525	59,657	37,841,850
46	Portugal	52,825	1,759	38,600	12,466	5,182	173	1,753,524	172,028	10,193,270
47	Japan	47,990	1,047	33,058	13,885	380	8	1,016,197	8,038	126,431,646
48	Honduras	47,872	1,506	6,649	39,717	4,825	152	116,246	11,717	9,921,427
49	Nigeria	46,867	950	33,346	12,571	227	5	317,496	1,536	206,662,307
50	Bahrain	44,397	163	41,209	3,025	26,004	95	912,111	534,236	1,707,319
51	Ghana	41,212	215	38,727	2,270	1,323	7	415,671	13,348	31,140,586
52	Armenia	40,593	803	33,157	6,633	13,696	271	177,322	59,828	2,963,872
53	Kyrgyzstan	40,455	1,478	32,734	6,243	6,190	226	267,718	40,963	6,535,656
54	Afghanistan	37,269	1,344	26,415	9,510	955	34	96,781	2,480	39,019,051
55	Switzerland	36,895	1,990	32,400	2,505	4,260	230	847,325	97,825	8,661,643
56	Algeria	35,712	1,312	24,920	9,480	813	30			43,934,744
57	Morocco	34,063	516	24,524	9,023	922	14	1,449,968	39,233	36,958,139
58	Azerbaijan	33,647	492	30,642	2,513	3,315	48	790,141	77,852	10,149,241
59	Uzbekistan	31,545	202	22,992	8,351	941	6	1,377,915	41,106	33,521,330
60	Serbia	28,262	646	18,965	8,651	3,236	74	754,143	86,353	8,733,282
61	Moldova	27,841	850	19,300	7,691	6,904	211	128,076	31,758	4,032,881
62	Kenya	26,928	423	13,495	13,010	500	8	358,330	6,649	53,894,135
63	Venezuela	26,800	229	16,930	9,641	943	8	1,596,120	56,149	28,426,623
64	Ireland	26,768	1,772	23,364	1,632	5,414	358	670,771	135,679	4,943,803
65	Nepal	23,948	83	16,664	7,201	820	3	775,100	26,552	29,192,221
66	Costa Rica	23,872	244	7,823	15,805	4,681	48	105,915	20,771	5,099,238
67	Ethiopia	23,591	420	10,411	12,760	205	4	509,010	4,416	115,254,952
68	Austria	22,245	723	20,123	1,399	2,468	80	974,508	108,133	9,012,138
69	Australia	21,713	331	12,144	9,238	850	13	4,980,172	195,055	25,532,096



70	El Salvador	21,269	570	9,875	10,824	3,277	88	266,079	40,999	6,489,871
71	Czechia	18,494	390	12,983	5,121	1,727	36	751,790	70,187	10,711,236
72	Cameroon	18,042	395	15,320	2,327	678	15	149,000	5,599	26,613,431
73	Ivory Coast	16,798	105	13,052	3,641	635	4	109,677	4,147	26,445,110
74	Denmark	14,959	621	12,988	1,350	2,582	107	1,780,284	307,237	5,794,501
75	S. Korea	14,660	305	13,729	626	286	6	1,637,844	31,943	51,274,213
76	Palestine	14,510	102	8,045	6,363	2,838	20	214,862	42,017	5,113,640
77	Bosnia and Herzegovina	14,498	425	8,159	5,914	4,422	130	152,346	46,469	3,278,428
78	Bulgaria	13,512	459	7,980	5,073	1,946	66	308,478	44,435	6,942,286
79	Madagascar	13,317	152	11,276	1,889	480	5	49,742	1,792	27,763,513
80	Sudan	12,033	786	6,282	4,965	274	18	401	9	43,954,755
81	North Macedonia	11,942	528	8,087	3,327	5,732	253	114,807	55,107	2,083,364
82	Senegal	11,380	238	7,449	3,693	678	14	121,982	7,266	16,788,715
83	Norway	9,684	256	8,857	571	1,785	47	494,706	91,174	5,425,933
84	DRC	9,499	225	8,375	899	106	3			89,832,075
85	Malaysia	9,103	125	8,809	169	281	4	1,063,304	32,807	32,410,904
86	French Guiana	8,324	49	7,549	726	27,796	164	43,127	144,011	299,470
87	Zambia	8,275	241	7,004	1,030	449	13	94,811	5,143	18,435,777
88	Gabon	8,006	51	5,823	2,132	3,588	23	91,767	41,130	2,231,139
89	Guinea	7,930	50	6,898	982	602	4	14,407	1,094	13,168,812
90	Tajikistan	7,827	62	6,614	1,151	819	6			9,559,815
91	Haiti	7,649	183	4,982	2,484	670	16	18,933	1,658	11,417,622
92	Finland	7,623	333	6,980	310	1,376	60	423,981	76,507	5,541,698
93	Paraguay	7,234	82	5,276	1,876	1,013	11	140,236	19,635	7,142,048
94	Luxembourg	7,216	121	6,170	925	11,508	193	647,643	1,032,818	627,064
95	Lebanon	6,812	80	2,290	4,442	999	12	371,239	54,419	6,821,888
96	Mauritania	6,555	157	5,570	828	1,406	34	57,604	12,356	4,662,068
97	Albania	6,536	200	3,379	2,957	2,271	70	42,242	14,680	2,877,436
98	Libya	5,929	125	724	5,080	862	18	62,907	9,142	6,881,374
99	Greece	5,749	213	3,804	1,732	552	20	658,178	63,182	10,417,119
100	Croatia	5,649	158	4,906	585	1,377	39	129,379	31,538	4,102,301
101	Djibouti	5,347	59	5,120	168	5,403	60	60,665	61,306	989,544
102	Maldives	5,157	20	2,835	2,302	9,523	37	89,555	165,367	541,552
103	Equatorial Guinea	4,821	83	2,182	2,556	3,425	59	44,356	31,514	1,407,508
104	Zimbabwe	4,748	104	1,524	3,120	319	7	149,748	10,060	14,886,169
105	Hungary	4,746	605	3,527	614	491	63	362,660	37,552	9,657,518
106	Malawi	4,674	146	2,430	2,098	244	8	34,877	1,818	19,180,259
107	CAR	4,641	60	1,721	2,860	959	12	29,817	6,162	4,838,671
108	Hong Kong	4,182	58	3,052	1,072	557	8	692,430	92,278	7,503,705
109	Nicaragua	3,902	123	2,913	866	588	19			6,633,124
110	Montenegro	3,696	68	2,521	1,107	5,885	108	39,875	63,488	628,075
111	Congo	3,664	58	1,589	2,017	662	10			5,531,995
112	Thailand	3,351	58	3,163	130	48	1	749,213	10,731	69,819,803
113	Eswatini	3,309	61	1,634	1,614	2,849	53	27,837	23,967	1,161,479



114	Somalia	3,227	93	1,728	1,406	202	6			15,937,877
115	Namibia	3,101	19	715	2,367	1,218	7	35,175	13,817	2,545,768
116	Mayotte	3,068	39	2,835	194	11,218	143	13,000	47,534	273,491
117	Cuba	3,046	88	2,460	498	269	8	301,598	26,629	11,325,824
118	Cabo Verde	2,883	32	2,128	723	5,179	57	61,633	110,722	556,647
119	Sri Lanka	2,875	11	2,622	242	134	1	166,737	7,783	21,423,341
120	Slovakia	2,615	31	1,874	710	479	6	280,980	51,462	5,459,944
121	Mali	2,573	125	1,969	479	127	6	27,007	1,330	20,309,302
122	Suriname	2,489	30	1,674	785	4,239	51	3,816	6,499	587,211
123	South Sudan	2,470	47	1,175	1,248	220	4	12,044	1,075	11,208,006
124	Mozambique	2,411	16	860	1,535	77	1	68,828	2,196	31,343,569
125	Lithuania	2,283	81	1,679	523	840	30	557,657	205,194	2,717,709
126	Slovenia	2,272	129	1,960	183	1,093	62	137,845	66,304	2,078,971
127	Estonia	2,167	63	1,968	136	1,633	47	128,212	96,644	1,326,637
128	Rwanda	2,152	7	1,392	753	166	1	304,500	23,450	12,985,066
129	Guinea-Bissau	2,088	29	1,015	1,044	1,058	15	1,500	760	1,972,787
130	Benin	2,001	38	1,681	282	165	3	101,987	8,390	12,155,458
131	Iceland	1,962	10	1,838	114	5,745	29	161,478	472,863	341,490
132	Sierra Leone	1,917	69	1,447	401	240	9			7,993,945
133	Yemen	1,832	518	915	399	61	17	120	4	29,894,092
134	Tunisia	1,717	51	1,265	401	145	4	105,356	8,904	11,832,151
135	Angola	1,679	78	569	1,032	51	2	64,747	1,964	32,967,526
136	New Zealand	1,570	22	1,526	22	314	4	498,480	99,654	5,002,100
137	Uruguay	1,364	37	1,146	181	393	11	133,237	38,341	3,475,087
138	Gambia	1,346	32	227	1,087	555	13	5,484	2,263	2,423,499
139	Uganda	1,313	9	1,138	166	29	0	301,286	6,566	45,883,715
140	Latvia	1,293	32	1,078	183	686	17	216,530	114,949	1,883,710
141	Jordan	1,268	11	1,187	70	124	1	652,759	63,907	10,214,244
142	Georgia	1,264	17	1,054	193	317	4	258,525	64,821	3,988,285
143	Syria	1,255	52	364	839	72	3			17,544,260
144	Cyprus	1,252	19	870	363	1,036	16	230,068	190,401	1,208,334
145	Liberia	1,240	79	725	436	245	16			5,069,921
146	Burkina Faso	1,204	54	984	166	57	3			20,961,139
147	Niger	1,158	69	1,062	27	48	3	9,052	373	24,291,068
148	Malta	1,141	9	692	440	2,583	20	145,267	328,899	441,676
149	Togo	1,067	25	729	313	129	3	48,431	5,836	8,298,708
150	Botswana	1,066	2	80	984	452	1	80,163	34,016	2,356,595
151	Jamaica	1,031	14	745	272	348	5	43,778	14,777	2,962,619
152	Andorra	963	52	839	72	12,461	673	3,750	48,525	77,279
153	Chad	945	76	843	26	57	5			16,473,138
154	Bahamas	945	15	113	817	2,401	38	6,557	16,657	393,657
155	Sao Tome and Principe	878	15	800	63	3,998	68	3,141	14,304	219,588
156	Vietnam	862	16	399	447	9	0	482,456	4,952	97,435,032
157	Lesotho	781	24	175	582	364	11	8,771	4,091	2,144,128
158	Diamond Princess	712	13	651	48					

159	San Marino	699	42	657	-	20,596	1,238	6,068	178,791	33,939
160	Réunion	690	5	631	54	770	6	35,419	39,529	896,021
161	Aruba	630	3	114	513	5,898	28	14,047	131,505	106,817
162	Channel Islands	599	47	545	7	3,442	270	52,055	299,100	174,039
163	Guyana	568	22	189	357	722	28	5,313	6,751	786,978
164	Tanzania	509	21	183	305	8	0			59,905,052
165	Taiwan	480	7	443	30	20	0	83,117	3,489	23,821,668
166	Burundi	408	1	315	92	34	0	17,306	1,451	11,926,103
167	Comoros	399	7	369	23	458	8			871,529
168	Myanmar	360	6	312	42	7	0	126,828	2,329	54,450,369
169	Mauritius	344	10	334	-	270	8	205,285	161,387	1,272,008
170	Isle of Man	336	24	312	-	3,949	282	8,826	103,734	85,083
171	Martinique	336	16	98	222	895	43	12,227	32,585	375,232
172	Faeroe Islands	318		225	93	6,505		60,000	1,227,395	48,884
173	Guadeloupe	317	14	186	117	792	35	20,305	50,746	400,132
174	Mongolia	293		263	30	89		40,907	12,457	3,283,922
175	Eritrea	285		248	37	80				3,551,711
176	Trinidad and Tobago	281	8	138	135	201	6	11,311	8,079	1,399,999
177	Cambodia	266		220	46	16		73,629	4,397	16,743,905
178	Turks and Caicos	216	2	39	175	5,571	52	1,470	37,912	38,774
179	Papua New Guinea	214	3	53	158	24	0	10,808	1,206	8,964,864
180	Cayman Islands	203	1	202	-	3,085	15	31,299	475,625	65,806
181	Gibraltar	202		187	15	5,996		25,012	742,416	33,690
182	Sint Maarten	189	17	86	86	4,403	396	1,334	31,075	42,929
183	Belize	177	2	32	143	444	5	4,175	10,480	398,391
184	Bermuda	158	9	144	5	2,538	145	27,627	443,800	62,251
185	Barbados	142	7	112	23	494	24	13,016	45,286	287,415
186	Brunei	142	3	138	1	324	7	43,312	98,900	437,939
187	Monaco	133	4	113	16	3,387	102	38,209	972,908	39,273
188	Seychelles	126		125	1	1,280				98,415
189	Bhutan	113		97	16	146		56,130	72,657	772,535
190	French Polynesia	112		62	50	398		6,525	23,213	281,089
191	Antigua and Barbuda	92	3	76	13	939	31	1,500	15,303	98,019
192	Liechtenstein	89	1	85	3	2,334	26	900	23,597	38,140
193	Saint Martin	78	3	44	31	2,014	77	1,770	45,694	38,736
194	St. Vincent Grenadines	57		52	5	514		2,529	22,788	110,980
195	Macao	46		46	-	71		4,071	6,260	650,290
196	Curaçao	32	1	30	1	195	6	1,080	6,579	164,168
197	Fiji	27	1	18	8	30	1	6,693	7,460	897,166
198	Saint Lucia	25		25	-	136		3,973	21,625	183,721
199	Timor-Leste	25		24	1	19		4,238	3,208	1,321,087
200	Grenada	24		23	1	213		6,252	55,533	112,581
201	New Caledonia	23		22	1	80		11,265	39,416	285,799
202	Laos	20		19	1	3		31,874	4,374	7,286,905

203	Dominica	18		18	-	250		1,005	13,957	72,006
204	Saint Kitts and Nevis	17		17	-	319		1,211	22,746	53,241
205	Greenland	14		14	-	247		6,137	108,082	56,781
206	Montserrat	13	1	12	-	2,604	200	61	12,220	4,992
207	Caribbean Netherlands	13		7	6	495		424	16,152	26,250
208	Falkland Islands	13		13	-	3,725		2,256	646,418	3,490
209	St. Barth	13		6	7	1,316		1,612	163,158	9,880
210	Vatican City	12		12	-	14,981				801
211	Western Sahara	10	1	8	1	17	2			598,843
212	<i>MS Zaandam</i>	9	2		7					
213	British Virgin Islands	9	1	7	1	297	33	1,522	50,309	30,253
214	Saint Pierre Miquelon	4		1	3	691				5,791
215	Anguilla	3		3	-	200		537	35,757	15,018

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11 GLOSSARY

Abbreviation	Definition
ADP	Automatic Data Processing Inc.
CBIRC	China Banking and Insurance Regulatory Commission
CBR	Central Bank of Russia
CEO	Chief Executive Officer
CERB	Canada Emergency Response Benefit
CMCO	Conditional Movement Control Order
COVID-19	'CO' stands for corona, 'VI' for virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV.'
EMCO	Enhanced Movement Control Order
FTSE	Financial Times Stock Exchange Group
FX	Foreign exchange
G7	Group of Seven
GDP	Gross Domestic Product
GLC	Government-linked companies
IMF	International Monetary Fund
IRB	Inland Revenue Board, or Lembaga Hasil Dalam Negeri
MCO	Movement Control Order
MLF	Medium-term lending facility
MOH	Ministry of Health
MSE	Micro and small-sized enterprise
NGO	Non-governmental organisation
NPL	Non-performing loan
OPEC	Organization of the Petroleum Exporting Countries
PBC	People's Bank of China
PDRM	The Royal Malaysian Police, or Polis Diraja Malaysia
PPE	Personal protective equipment
QR	Quick Response
RMB	Reminbi, the official currency of People's Republic of China
RMCO	Recovery Movement Control Order
RRR	Required rate of return
SAMA	Saudi Arabian Monetary Authority
SAR	Saudi Riyal
SARI	Severe Acute Respiratory Infection
SARS	Severe Acute Respiratory Syndrome
SME	Small and medium-sized enterprise
SOP	Standard operating procedure
TNB	Tenaga Nasional Berhad
TSEC	Taiwan Stock Exchange Corporation
UN	United Nations
VAT	Value-Added Tax
VR	Virtual reality
WHO	World Health Organization
WTI	West Texas Intermediate



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