THE IMPACT OF THE CORONAVIRUS PANDEMIC IN THE UK, THE US AND EU MEMBER STATES

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Abstract

This paper, critically analyses how the coronavirus pandemic evolved as a contagious disease that became a menace to public health and culminated into the worst global crisis in this century. The paper exposes how the overburdened and underfunded health care system of the three jurisdictions was made vulnerable. Most governments took an unsystematic approach, by initially making effort to conceal the level of the virus severity, while others took proactive steps to block the spread due to their level of disaster risk preparedness. This paper exhibits the socio-economic impact of coronavirus outbreak and the numerous protective measures taken to contain the spread of the virus by the government and the resultant outcomes of those measures. The paper then provides insights into numerous government's dilemma of saving citizens and the planet on the one hand and keeping the financial systems in motion on the other.

Keywords: coronavirus pandemic, public health, socio-economic impact, EU member states, government's dilemma

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1. Introduction

Coronavirus (COVID-19) is among the family of coronaviruses that cause illnesses such as common cold, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (Roth et al., 2021). Some of the identified COVID-19 symptoms include shortness of breath, cough, fever, muscle or body aches, sore throat, headache, fatigue, new loss of taste or smell, vomiting and nasal congestion or runny nose (Sciejew, 2021). COVID-19 can be severe; the viral infection has caused increasing number of deaths in many countries since its discovery in Wuhan, China in December 2019 (Noor et al., 2020). Scientists derived the name "coronaviruses" from the crown-like spikes that appear on their surfaces when seen under a microscope (Sahoo & Pandey, 2020). From the time of the outbreak, the virus has mutated from alpha to delta and currently omicron. Human-to-human infections caused by animal coronaviruses are rarely seen as was evident in two previous coronaviruses namely MERS-CoV and SARS-CoV (Gupta et al., 2021). However, the SARS-CoV-2 virus is considered a beta coronavirus when compared to MERS-CoV and SARS-CoV (Gupta et al., 2021). One major similarity is that the origin of all three viruses has been traced to bats. The sequences from the US patients are like the one that China initially posted, thus, consolidating claims that COVID-19 pandemic emerged from an animal reservoir. Nonetheless, global scientists are still investigating the exact cause of this virus (Slagle, 2021).

2. Methodology

Using the strategic management tool that comprises of Political, Economic, Social, Technological, Environmental and Legal (PESTEL) help to analyse the implication of measures adopted by the governments of the UK, the US and EU Member States (Chhabra et al., 2021). The PESTEL model build a more holistic view of the coronavirus pandemic. The findings from the PESTEL analysis highlights the benefits and pitfalls that needed to be considered when identifying appropriate solutions. SWOT (Strengths, Weaknesses, Opportunities and Threat) is another analytical methodology (Srdjevic et al., 2012) for multi-criteria decision making that was adopted to critically evaluate PESTEL. The combination of SWOT and PESTEL provides a more accurate and extensive analysis of the complex and multidimensional environment associated with the coronavirus pandemic.

3. Analysis

3.1. The Political Impact

The acronym "P" emphasises on important role of politics in business. The political influence requires organisations to weigh various threats and opportunities prior to expanding their business scope. Thus, political factors have direct impact on organisation and other stakeholders in decision-making process. There is direct correlation in government regulation and free markets which often guide businesses in making long term plans. In the context of the coronavirus pandemic, global political disruption was enormous as the spread of the virus was on its upward trajectory which resulted in various political measures (Landman & Splendore, 2020). Governments enacted legislation, then enforced policies and drafted guidelines for the

population to curtail the rapid spread of the virus. The indefinite postponement of legislative activities occurred during the initial outbreak and deaths of numerous politicians were reported around the globe. Elections were postponed due to fears of spreading the deadly virus.

3.2. The Political Impact in the UK

In the case of the UK, the population was impacted in many ways which precipitated the government to embark on various measures. Overall, the death rate was considered moderate for the UK general population, but higher with the elderly and individuals with chronic underlying conditions during the first outbreak of the virus (Williamson et al., 2020). The coronavirus pandemic casted a shadow on the extent of underfunded healthcare sectors that consequently reduced their capacities to minimum (Alder et al., 2020). The government enacted Coronavirus Act which gave a leeway for elections (local councillors, police commissioners and mayor of London Assembly) that ought to have been conducted in May 2020 but postponed to May 2021 (Coronavirus Act 2020, s 59).

A surge in demand for Personal Protection Equipment (PPE) caused severe shortage that added to the problem of the pandemic during the first months of the crisis, as medical staff did not have sufficient resources to carry out their duties as needed, which reflected on the lack of government preparedness for a pandemic (Nyashanu et al., 2020). The PPE procurement predicament existed pre coronavirus pandemic as the national stockpile reached critical level during the pandemic (Oehmen et al., 2020). Health care workers on coronavirus wards in hospitals recorded nearly three times higher death rates of asymptomatic infection in comparison to health care workers in ordinary wards (Rivett et al., 2020). Some health care workers were reluctant to take breaks as they felt guilty of wasting PPE and they also went to the extent of purchasing their own PPE to combat the shortages from their employers (Singh et al., 2019).

3.3. Measures Adopted in the UK

Necessary measures were taken by the UK government to mitigate the spread of the coronavirus and reduce the demand for Intensive Care Unit (ICU) beds. To curtail the spread of the virus to other healthcare facilities and communities, protect healthcare workers and safeguard risk groups, the following measures were adopted (Tabish, 2020). Firstly, the government adopted the policy of lockdown to dissuade movement of people to avert the rapid spread of the virus. People were permitted to travel for food shopping, to purchase medical needs, exercise once a day within the vicinity and only report to work if necessary (Douglas, 2020). Sporting events, schools, restaurants, bars, gyms and other leisure related businesses were included in the closedown policy (Public Health England [PHE], 2020, November). This measure forced closure of offices and companies and encouraged remote working practices where practical. The government in turn encouraged the measures by paying 80 per cent of employees' salary directly to their organisations (Brewer & Gardiner, 2020).

Secondly, since transmission normally happens via droplets which requires close contact, the government implemented social distancing by 2 meters and mandated the wearing of face masks in public places to mitigate the spread of the virus (Yin et al., 2020). The UK policy makers drew a conclusion that, the physical distancing measure will reduce contact

levels which can lead to decline in number of cases. The measure after evaluation sufficiently controls the impact on the reproduction number (R_0 from 2.6 prior to lockdown to 0.62).

Thirdly, contract tracing was another policy measure copied from other countries to mitigate the spread of the coronavirus as the number of infections continued to increase by the day. The merit of this policy is its ability to identify potentially infected individuals prior to the emergence of severe symptoms and if contacted in sufficient time transmission can be averted (PHE, 2020, February).

Fourthly, the UK government proceeded immediately with awarding of contracts for procurement of PPE as the number infected with coronavirus continued to grow. The limited available PPE were prioritised to high-risk areas of the healthcare sector which contributed to lower death rates amongst the anaesthetists (Cook et al., 2020). However, those companies selected by the government purchased faulty antibody tests from China worth £129 million and ordered 10 million tests from Roche and Abbott for £191 million with little evidence of their effectiveness (Keeling et al., 2020).

Finally, economic support was provided to individuals and companies as a measure to prevent economic collapse and to secure business continuity (Goede, 2020). The government implemented a 'furlough scheme' to avoid mass redundancies. The measure gave both the government together with employers and employees a time lag to mitigate the prevailing circumstance. The scheme allowed businesses to keep employees in their payroll and government covered 80 per cent (or £2,500, whichever is lowest) of their salary for the period when they were absent from work. The government released £350 billion to allow mortgage lenders to offer a three-month mortgage holiday for those having financial constraint. The government also allowed six-month rent holiday (Nicola et., 2020).

3.4. The Outcome of the Measures Adopted in the UK

Unquestionably, the measures adopted by the UK government to mitigate the spread of the coronavirus consequently resulted in both negative and positive outcome. In sieving through each measure, it can quickly be identified that some of those policies were not rigorously thought through prior to their implementation. There was alleged misappropriation of financial resources and high level of cronyism during contract allocation for procurements of resources needed to mitigate the spread of the virus (Goede, 2020). Contracts awarded were often not documented which left the government open to charges of cronyism of £17.3 billion allocated for such contracts. In period of emergency, governments are known for their shortcomings in procurement proficiency, as accountability measures are downgraded. However, the UK government appeared worst comparatively to other western countries for awarding contracts to cronies during the coronavirus pandemic. The government fell short of following due process for competitive tendering as only 38 percent contracts were awarded through existing structure designed for government procurement of goods and services. The 61 per cent remainder was awarded directly to cronies without the usual contract vetting (Jones & Hameiri, 2021).

The track and trace system that was procured to curtail the spread of the coronavirus failed to meet the highly anticipated result. Awarding of the contract by the government to inexperienced private companies with no track record often closely connected to Conservative politicians largely attributed to the palaver. The government ought to have used the expertise of the Public Health England for procurement of the equipment and PPE (Rogers, 2021). Another negative outcome is the constant U-turn of policy decision by the government. For instance, stream of data analysis discovered the national Public Health England PPE guidance changes constantly which were reported daily in early April 2020. Policy inconsistency often led to confusion and lack of confidence in managing patients with coronavirus without appropriate PPE (PHE, 2020, April).

3.5. The Political Impact in the EU Member States

To avert the spread of the virus across the EU Member States, electoral processes were suspended (Scott, et al., 2020). However, postponing elections gave rise to growth of repressive regimes as authoritarian governance recommenced in some Member States. For instance, Viktor Orbán in Hungary suspended the national parliament and pronounced a state of emergency for unstated length of time. Draconian laws were immediately introduced to inhibit the freedom of speech soon after the suspension of elections in Hungary by the president, Viktor Orbán (Scott et al., 2020).

The coronavirus affected the political and socio-economic fabric of all EU Member States. As a result, some Member States began looking inward and started prioritising their own interest and forewent the solidarity of the Union. Germany, France and the Czech Republic decided to introduce limited exports in effort to protect the supply of medical equipment such as face masks despite shortages in other Member States (Kelly, 2020). Nonetheless, the EU Member States needed continuous cohesiveness in their responses to obtain and supply medicines and equipment to countries that were struggling in order to prevent the spread of the virus across the borders.

3.6. Measures Adopted in the EU Member States

Many Member States relied on existing laws before the emergency or adjusted pre-existed legislations to mitigate the spread of the virus (Crego & Kotanidis, 2020). The reoccurring trait noticed across the 25 Member States regarding containment measure is restrictions, closure of businesses, quarantine obligation, testing obligations and travel bans as outlined. Coordinated efforts were agreed with respect to support for businesses in the health care sector by the Commission (European Commission, 2020). More so, 25 EU Member States responded positively to the Commission request for medical equipment to be supply to health systems. Manufacturers supplied more PPE for patients, health care workers and the public after the request by the European Commission in a coordinated effort (Goniewicz et al., 2020).

Respective EU Member States Parliaments were directedly involved in the management of the coronavirus pandemic by adopting budgetary, legislative and oversight powers as measures accorded by their legislation (newly formulated or existed) to contain the virus. For instance, Austria, Croatia, Demark, France, Germany, Ireland, Malta, and Poland, enacted new legislation and amended existed laws to strengthen the government in adopting

measures needed to curtail the spread of the virus. National Parliaments adopted ordinary oversight to gather fresh information on prevailing situations and the measures used to deal with the pandemic (Crego & Kotanidis, 2020).

Many EU Member States took unilateral measures to close their national borders from foreigners in fear of transmitting the coronavirus if permitted entry, it was extended across the Schengen zone (Anghel, 2020). The closure of borders provided a pretext for national populists and Eurosceptics to encourage public fear. Centralised emergency powers in the larger political sphere of anti-immigration were experienced more by Eastern European leaders, such as Viktor Orbán of Hungary, who asserted that foreigners are to be blamed for the spread of the coronavirus. At the same time, the Romanian president, Klaus Iohannis, made remarks to dissuade Romanians that domicile abroad to cease from returning home during the lockdowns in order to avert the spread of the coronavirus. These statements aimed intentionally to serve political purposes and legitimise intolerance.

3.7. The Outcome of the Measures Adopted in the EU Member States

Concerns in the EU Member States were brought about by the pandemic, especially in countries that were hard hit by the virus. A poll conducted yielded a negative political impact in Italy as it showed 88 per cent consented that the EU was less helpful in assisting the country to contain the virus which resulted in one of the highest death rates from the coronavirus across the EU Member States (Cherkaoui & Arnold, 2020). The France and Germany governments were condemned by other EU Member States for blocking the export of important medical supplies (Maulaya & Jasuma, 2021). Those actions raised the question of the basis on which solidarity of EU Member States is formulated.

3.8. The Political Impact in the US

An unprecedented number of deaths from the coronavirus put the US government under immense pressure during the outbreak. Deceased bodies were piled in refrigerated trucks as hospital morgues were overwhelmed. Furthermore, disproportionate deaths and infections were recorded in nursing homes, veteran's facilities, and prisons. The health care systems in the US were severely impacted by the outbreak of the coronavirus pandemic with shortages of hospital beds, breathing ventilators, masks, and PPE. President Trump shifted total responsibilities on the states to mitigate against the virus and directed them to acquire the necessary equipment as his administration is not a 'shipping clerk' for these supplies (Maulaya & Jasuma, 2021).

3.9. Measures Adopted in the US

The US government legislated a $2.1 trillion rescue package directed at keeping workers in employment as opposed to bailing big corporations. The bail out also targeted households and small businesses directly which aimed at maintaining aggregate demand and allowing business to continue their operation. Direct cash payment of $1,200 was given to all

adults Americans and $500 to children (Basbay, 2020). Extra funding was provided by the government to assist the unemployment programme that was under pressure as over 30 million workers lost their jobs within two months (Bernard &Lieber, 2020). In early February 2020, during the onset of the coronavirus outbreak, the US government created surveillance systems in five cities to measure the level of contagion of the virus which enabled experts to predict the next hot spot. The government plan encountered a setback as the program was delayed for weeks leaving the US administration with limited knowledge of the rapid spread of the virus (Mirvis, 2022).

3.10. The Outcome of the Measures Adopted in the US

System modelling used by the US government to mitigate the coronavirus containment and spread provided important information for decision and policy making. However, the models had some limitations, as each modeller used different inputs and assumptions, and mathematical formulae which ended up with different picture of the virus progress. For example, the Institute for Health Metric Evaluation (IHME) model used results in other countries to extrapolates US trends, while the Columbia and Massachusetts Institute of Technology (MIT) models used epidemiological case data that provided different result on approximating the peak and flattening of the virus (Mukherjee, 2020).

The government allowed all spectrum of the society, including cottage industries of small manufacturers and home-sewers to make masks for everyday use to mitigate against the spread of the virus. Meanwhile universities and pharmaceutical companies collaborated to develop and test products and potential vaccines (Mirvis, 2022). However, the management of the coronavirus pandemic in the US was problematic and more complex as strained relationship became apparent between the federal and states' right and responsibilities. To exemplify, the federal government left the onus on the states to implement guidelines to slow the spread of the coronavirus. In April 2020, the federal government issued three-phased reopening guidelines which were later rescinded and left to states to implement.

3.11. The Economic Impact

The first "E" in PESTEL refers to the economic metrics that influences either the success or the failure of organisation. The economic factor is pivotal to organisation survivability as global economies are constantly adjusting to the macro and micro-environment (Abigail & Zheng, 2021). In relation to the coronavirus pandemic, the restrictions on local and global movements because of the pandemic created immense economic shock around the globe. The impact of the pandemic resulted in the immediate contraction of global Gross Domestic Product (GDP), low investment, widespread inflation, fragmentation of global trade and recession in many countries (Schaltegger, 2020). The governments of the three jurisdictions adopted different strategies to counter the pandemic.

3.12. The Economic Impact in the UK

The economic impact of the coronavirus in the UK economy was immense as the Gross Domestic Product (GDP) fell by 9.8 per cent in 2020, the highest since the 1920 depression (Office for National Statistics, 2021). The severity of the impact is spread across all sectors of

the economy with particular emphasis on hospitality, entertainment, travel and tourism; young and unskilled bore most of the burden (Hodgkin & Sasse, 2021). Apart from restriction of movement resulting from Brexit, the coronavirus has induced an exodus of EU workers out of the UK which has caused shortage of labour in most sectors (Deloitte, 2020). All large sectors of the UK economy are under strain but the one that suffered most is the food sector, comprising of food distribution and retailers as the population began to panic buy and stockpiling food. An increase of £1 billion worth of food was hoarded in UK homes because of panic buying. The stockpiling of food affected food banks as the population became self-centred, less generous and donation reduced dramatically (Petetin, 2020).

Number of businesses went into liquidation as a result of lockdown measures enforced by the government to curtail the spread of the virus. Most of the population in the lower spectrum of the earnings distribution (apart from key workers in health care sectors and social care) were obliged to shut down and 80 per cent of those workers were not able to work from home. In contrast to a quarter of the highest earner of the population that work from home. Younger citizens and ethnic minorities were more affected by the lockdown due to the level of unemployment and the low disposable income that exists with the cohort (Blundell et al., 2020).

3.13. Measures Adopted in the UK

Stimulus plans of over 20 per cent of GDP were proffered by the government as way of a safety net designed to prevent the economy from collapsing (Tabish, 2020). Financial support was also given to businesses including Value Added Tax (VAT) deferrals, business loans, and business rate holidays. Included in the stimulus was an increase in welfare payments, wages were subsidised by the government and the self-employed were provided with profit guarantees (Berry et al., 2020). Other measures implemented by the government to stimulate demand was the 'Eat Out to Help Out' campaign. Participating businesses gave £10 discount per person on food and non-alcoholic drinks consumed in the restaurant premises from Monday to Friday.

Over £350 billion was committed to pay over 80 per cent of all private sector wages up to a minimum of £2,500 to prevent employers from discharging workers (Partington, 2020). However, Her Majesty Revenue and Customs reported on the Public Accounts Committee that approximately 5 to 10 per cent of furlough cash was erroneously awarded. It was suggested that more than £3.5 billion claims were paid out (Sawyer, 2021). The UK government pledged a sum of £330 billion Coronavirus Business Interruption Loan Scheme (CBILS) designed to support small and medium sized businesses. To ensure the scheme runs smoothly, the government through the Bank of England introduced the Quantitative Easing (QE) programme to expand over £200 billion borrowing and relaxed free lending for businesses (Berry et al., 2020). However, fewer loans were granted by the banks under the CBILS scheme as some banks were reluctant to borrow where repayments were not certain irrespective of the government guarantees.

The Self-Employed Income Support Scheme (SEISS) introduced by the government provided grants to self-employed individuals or partnerships who can evidently through a tax return from 2018-2019 and self-employment as prove of their main income. The self-employed were protected with a profit guarantee worth up to 80 per cent of their average monthly profits

(or £2,500, whichever is the lowest) that reflect tax payment in previous years. Also, the self-employed (small shop owners, taxi drivers) that has a record of tax payment were also supported by the government in a similar approach adopted by the US government (Partington, 2020). However, those that commence their self-employment (7 per cent of the self-employed workforce) from April 2019, were precluded from the scheme. Additionally, those that use the self-employment (8 per cent or 329,900) as a top-up income were not covered by the scheme (Enterprise Research Centre, 2020).

3.14. The Outcome of the Measures Adopted in the UK

Those stimulus policies resulted in increased borrowing to finance the schemes, which in turn increased the budget deficit that complemented decline in investment. Some household savings increased due to closures of entertainment and service establishments because of the lockdowns (Sawyer, 2021). The government was unable to leverage on taxation as a source of income to fund spending on the economy and prevent the sectors from collapsing. The gross domestic product plummeted to over 7 per cent in March 2020 and by further 19 per cent in April 2020.

3.15. The Economic Impact in the EU Member States

The coronavirus pandemic caused economic decline in the EU Member States with a contraction of 6.1 per cent in the Gross Domestic Product (GDP) worse than the times of the global financial crisis (Clark, 2021). In an effort to mitigate the economic meltdown, the European Central Bank (ECB) raised the level of asset purchase by €870 billion and terminated the limit set on bond purchases in EU Member States (Ferrara et al., 2021). The ECB created Corona-bonds, issued to stimulate borrowing at low cost. The intention was to economically stimulate Member States, such as Italy, Spain and France that were worse hit by the coronavirus pandemic. The coronavirus crisis has resulted in internal economic differences in government and private finance. The government deficit increased in some Member States that depend on tourism revenues and government surpluses evaporated (European Commission [EC], 2021, October). Policy makers across the EU Member States needed to put into consideration the existing trade-offs between supporting economic activity and public health.

3.16. Measures Adopted in the EU Member States

Measures were introduced nationally with coordinated strategies to reduce the adverse impacts on EU Member States by EU Commission. To dampen the impact of the coronavirus, a rescue package of €1.7tn was pledged to support economic activities of EU Member States ((Nicola et., 2020). With the aim of stabilising and strengthening EU Member States through the pandemic, the ECB purchased €750 billion worth of assets. The Commission provided a €25 billion investment fund to support affected businesses through their government to encourage public spending (Buck et al., 2020).

Job retention schemes were implemented by EU Member States in line with global economies to continue paying employees even when economic activities ceased due to lockdown. For example, the German government spent over €822 billion to save businesses,

pay employees wages and the self-employed were given grants. The Germany government made provisions of €500 billion in loans to support companies affected by coronavirus pandemic ((Nicola et., 2020). The government of France, Spain and Italy pledged €345 billion, €200 billion, and €25 billion respectively to assist businesses that were impacted by the novel coronavirus (EC, 2020, June). The French government introduced corporate tax postponement and payments of workers was part of the exceptional measures implemented.

3.17. The Outcome of the Measures Adopted in the EU Member States

Economic measures introduced by the European Commission and executed by national governments has caused economic division and has put pressure on EU solidarity. Restrictions of movements to prevent national health systems from collapsing caused a sharp shock on EU Member States economies. State expenditures pledges and tax holidays to stimulate business has created fiscal deficits in all Member States which will put pressure in future budget negotiations due to economic disparity in revenues and contributions (Anghel, 2020).

3.18. The Economic Impact in the US

Societal lives in the US were upended by coronavirus pandemic when the federal government and various states started enforcing restrictions on individuals and businesses in March 2020. Contrary to the recession that hit the housing and financial services badly in 2008, the coronavirus put the US economy to a halt. Planes were grounded, movement was restricted, people stopped driving vehicles leading to empty roads, demand for goods and services diminished and businesses made massive redundancies leading to unprecedent increase unemployment (Joyce & Prabowo, 2020). The Congress speedily enacted legislation that led to passage of four laws signed by the President on 6 April 2020.

The restrictions imposed by the government for employees to work from home and self-imposed isolation policy consequently resulted in declined economic activities including transportation, fast-food, hospitality and leisure activities (Cherkaoui, 2020). The US stock market index (S&P 500) plummeted to its lowest level during the outbreak of the coronavirus. The Dow Jones and Nasdaq Industrial Average fell until the US government secured the Coronavirus Aid, and Economic Security (CARES) Act 2020 which increased the confidence in the market (Bora & Basistha, 2020).

3.19. Measures Adopted in the US

To prevent the economy from collapsing, the Committee for a Responsible Federal Budget approved the US Central Bank's release of $6 trillion. The Bank cut the federal funds rate by half a per cent, announced $700 billions of quantitative easing. The US government purchased $1.9 trillion in assets and provided more than $2 trillion loan programs aimed at cushioning the blow to many businesses (Joyce & Prabowo, 2020). The Federal Reserve lowered the interest rate to make it cheaper to borrow and pump money into the economy and provide necessary support for businesses. Those steps were necessary for businesses survival and banks required liquidity to facilitate credit to businesses.

3.20. The Outcome of the Measures Adopted in the US

The economic stimulus introduced by the US government yielded numerous positive outcomes as it averted the economic system from failing. The direct one-time cash payments of $1,200 to adult Americans helped alleviated their immediate financial needs. Furthermore, the business loan package available to businesses such as airlines and cruise lines that were impacted by the coronavirus helped reinvigorate the sectors and contributed positively to the economy. The $100 billion in funding for the health care sector reignited the systems to build more capacity (Cherkaoui, 2020).

3.21. The Social Impact

The "S" in PESTEL denotes the societal influence in purchasing behaviour that is crucial in determining the success or failure of businesses (Ramya & Ali, 2016). These factors include but are not limited to population, education, accommodation, transportation, foodstuff, and employment. The implications are huge for organisations especially in periods of economic crisis where social indicators try to establish when an economy might respond to certain changes in consumer behaviour (Feldman, 1971). Social implications of the coronavirus pandemic have profound outcomes beyond its exponential infection rate that scourged across countries and continents. For example, quarantine restrictions were necessary for the governments' efforts to control public health (Marinković & Lazarević, 2021). Structural inequalities became eminent during the outbreak of the coronavirus pandemic as income, education and access to medical care made minorities vulnerable to higher risk of infection and death.

3.22. The Social Impact in the UK

Gaps in the UK healthcare sector and the social system were exposed by the coronavirus pandemic. Medical professionals lacked essential protective equipment and shortages in hospital beds and ventilators were evident. Unemployed and minimum wage employees were seeking assistance from the government that was struggling to support health care services after years of underfunding (Berry et al., 2020). The coronavirus outbreak resulted in unpresented demand for NHS services which weakened the capacity to provide adequate service to mitigate the exogenous demand of the pandemic. The impact resulted from continuous slash in funding of 1.4 per cent between 2010 and 2019 (Tahtis et al., 2021). The reduced spending in the health care sector had a knock-on effect in the provision of hospital beds, waiting time, trained nurses and other services that would have supported the system better in the period of the coronavirus pandemic. Those born outside the UK and Ireland in occupations such as commercial drivers, security guards and those working in care homes recorded higher death rates than the national average (Sawyer, 2021).

3.23. Measures Adopted in the UK

Different polices were adopted by the government with the intention of managing the suffering of patients. Those people infected by the coronavirus that are not in a recognised risk group but presented mild symptoms were managed at home with clear instructions to follow up if symptoms became progressively worse. While patients with respiratory distress that required oxygenation needed hospitalisation for proper management (Craven, et al., 2020). Additionally, to mitigate the spread of the virus, the government suggested that property sellers and buyers halt any negotiations that were in progress during the lockdown periods.

Three months 'mortgage or rental holiday' was given to those experiencing financial difficulties as result of the coronavirus pandemic. The government passed legislation to cease evictions and eviction proceedings for the period (Michael, 2020). The government went further to support the less privileged in the society by changing the welfare payments, particularly, Statutory Sick Pay was paid to those tested positive from coronavirus and were advised to self-isolate. Also, the Universal Credit standard allowance was temporary increased by £20 per week and the minimum income floor for self-employed was lifted (Sawyer, 2021).

3.24. The Outcome of the Measures Adopted in the UK

Remote working was a redundant concept in most employment sectors as physical presence is necessary. For example, many employees in retail, construction, logistics and food production were required to be physically present at work (Sanchez et al., 2020). People take employment in these industries purely because of financial compulsion - considering the precarious nature of the jobs and low payments (Berry et al., 2020). Socio-economic division in educational achievement in the UK was more accentuated during the school shutdowns. Privately educated children from affluent families were provided with learning materials and equipment such as laptops and the engagement between students and teachers was more active than those children in deprived families (Blundell et al., 2020). More so, the lockdown increased the level of domestic violence such as physical and sexual abuse. Records from Refuge Charities indicated a 25 per cent increase in helpline calls for domestic abuse during the lockdown (Refuge Charity, 2020).

3.25. The Social Impact in the EU Member States

A higher proportion of death from the coronavirus was recorded in Italy, Spain and France in comparison to other EU Member States at the initial outbreak due to ineffective management and lack of resources (Lupu & Tiganasu, 2022). Italy is known to be one of the EU Member States that supported more doctors, however, the management of the health care system experience lacked central coordination thereby exposing a large number of the over 65 years to the virus. The Spanish government's underinvestment in the health care sector impaired its capacity when the outbreak was reported in the country. The health care system became unresponsive to surge in demand for intensive care unit beds, protective equipment, diagnostic test kits and mechanical ventilator (Lupu & Tiganasu, 2022). The French health care system was equally overburdened with demand and unable to meet the needs of coronavirus patients. Assistance was sought from the Germany government to cater for hundreds of the

coronavirus patients from France. The Spanish and Italian governments received medical support from Turkey, Cuba, Russia, China, and Qatar (Cherkaoui, 2020).

3.26. Measures Adopted in the EU Member States

The measures undertaken by EU Member States included restriction of movements, teleworking, reinforcing the message of cleaning, disinfection and provision of protective equipment (European Parliaments, 2020). There was coordination amongst Member States in the provision of PPE and medical supplies. The EU Commission provided 90 per cent funding for procurement of facemasks, ventilators, laboratory supplies, medical equipment, and PPE. European industries were contacted and advised to maintain their production capacity for necessary supplies of PPE in EU Member States. On the other hand, the export of PPE was regulated to ensure sufficient supply to all Member States (Broadbent, 2020). The process is managed by the Emergency Response Coordination Centre (ERCC). Member States were encouraged to admit their citizens and residents and transit was permitted to EU citizens returning to their countries such as Romania (Mantu, 2020).

3.27. The Outcome of the Measures Adopted in the EU Member States

During the outbreak of the coronavirus, government efforts were tilted towards supporting economic activities and ensuring that political institutions remain formidable. In contrast, less attention was given to social systems which resulted in reactive crisis management. Late decisions made in favour of public health in many EU Member States contributed to greater loss of life (Pham et al., 2020).

3.28. The Social Impact in the US

Pre-existing norms, patterns and the level of income disparities in the US that permit certain group privilege over others were exposed by the coronavirus pandemic (Dickson, 2020). The healthcare system is funded through a mixture of private and public spending and is designed to make profit for shareholders with limited government intervention. The system is design to make profit for shareholders and limited government intervention. Most healthcare facilities are owned and operated by private businesses. The government was forced to pay for coronavirus tests for those patients that could not afford them as the hospitals refused to test (Goede, 2020). In comparison to other advanced capitalist countries, the US welfare system is renowned for been ungenerous and successive government has become increasingly reluctant to social spending (Moos, 2021).

3.29. Measures Adopted in the US

State Governors in the US mitigated the spread of the virus by imposing stay-at-home orders in their respective jurisdictions. The state of California issued the first stay-at-home order in March 2020 and other states emulated with the number increasing to 42 states by 20 April 2020 (Joyce & Prabowo, 2020). Residents were compelled not to leave their home except for essential work, food and medicine. Many employees were persuaded to work remotely by

the US government as a measure to mitigate the spread of the virus. Schools and day care centres were forced to close in line with the government guidelines. For instance, the Governor of Pennsylvania ordered the closure of all nonessential businesses. The consequence of the stay-at-home policy resulted in a decline in the demand for many economic activities (Cherkaoui & Basbay, 2020). Businesses struggled to pay their rents and wages, and many were forced to close due to lack of business.

3.30. The Outcome of the Measures Adopted in the US

Social distancing mandates by the government disrupted work, school, social and family relationships. In turn, the physical and organisational structures that are dependent on health care, social services, education, faith-based organisations, government and many others interpersonal interaction adjusted their practices by moving online, postponed their activities or closed down (Joyce & Prabowo, 2020). Employees that had health care plan from their employment were impacted when they lost their employment because of the coronavirus pandemic. Over 10 million people lost their job since the end of March 2020 and the loss of medical insurance became added palaver.

3.31. The Technological Impact

The "T" in the PESTEL emphasises on the technology related opportunities and threats to every organisation. The global shift in businesses to more technological and scientific solutions has become prominent as organisations try to gain competitive advantage (Sing, 1997). For example, global healthcare organisations are leveraging technological advancement to improve clinical care and telehealth services (Srivastava & Singh, 2021). The coronavirus pandemic has accelerated the global transformation of digital technology in various ways. Human behaviour such as shopping, learning, working, meeting and entertaining has shifted from offline to online as a result of digital technology dynamism (Al-Maroof, et al., 2020). Technology trends such as Artificial Intelligence (AI), robotics, drones and the use of webinar platform (zoom) has evolved beyond comprehension. Their adoption has quickly refocussed businesses goals to cope with the challenges of coronavirus impact on a global scale. Countries that maintained low per-capital mortality rates from the pandemic adopted and integrated digital technologies for testing, contact tracing, quarantine, and health care (Eum & Kim, 2022).

3.32. The Technological Impact in the UK

Corporations and the UK government embraced the design and the use of technologies in various ways. They were used not only for mass surveillance of locations, preferences, and travel habits but also for biometric data (Cherkaoui & Arnold, 2020). It is indisputable that challenges existed with collection of data and their use has caused great concern. The impact of technology overall appeared to have yielded positive outcome in the UK during period of the coronavirus pandemic.

3.33. Measures Adopted in the UK

Access to internet technology proved very essential for individuals, corporations, and the government during the lockdown. Internet played a prominent role in the UK educational system as learning was done remotely. In the public sector, the revolution of technology was immense and became a commonplace as courts started operating remotely with the use of Skype, Microsoft Team and trials were held via video technology. For businesses, new technologies were invented, and their use varied considerably, such as electronic filing and zoom meetings, online processes as employees were compelled to work from home (Coronavirus Act 2020, s 34).

3.34. The Outcome of the Measures Adopted in the UK

The Coronavirus Act 2020 permitted the use of technology for hearings to take place remotely and allowed video of legal proceedings. Prior to enactment of the Act, it would have been a criminal offence under section 41 of the Criminal Justice Act 1925 (*Spurrier v Secretary of State for Transport)*. Evidence showed how the coronavirus affected people differently based on their socio-economic status (Aziz, 2020). The outbreak of the coronavirus exposed social inequalities and digital illiteracy as 10 per cent of adult population in the UK do not have access to internet (Watts, 2020). The obvious predicaments of the digital exclusion are affordability, lack of digital skills and education which is common with the less privilege. However, the embracing of technology in the era of coronavirus might be a road to a slippery slope for surveillance as history has showed that short-term measures often have a habit of lasting longer than originally intended.

3.35. The Technological Impact in the EU Member States

Governments in the EU Member States implemented variety of technological measures to prevent the rapid spread of the coronavirus. Following drastic lockdown measures and borders closure within the Schengen zone, the coronavirus pandemic continued to evolve, which at a point forced many Member States to seek technological solutions. Some of the technological solutions includes anonymised phone location tracking and contact tracking apps (Dumbrava, 2020). The acceleration of technological measure to curtail the spread of coronavirus by Member States reinforced the existing debate of privacy protection of users. The EU has recently set limitations to the unfair use of personal data. For example, the indiscriminate sharing of data with US corporations (Klonowska & Bindt, 2020). Nonetheless, the General Data Protection Regulation (GDPR) of 2016 set out a standard of data protection (European Parliaments, 2021).

3.36. Measures Adopted in the EU Member States

Some EU Member States used anonymised phone location data that provided accurate statistics about people's movements including density and direction of movement (Orange, 2020). The Italian government was able to strengthen the lockdown measure when data was provided from telecoms that people were not adhering to restrictions (Hsu, 2020). Similarly, the Belgian government was able use location data as a measure to ensure that 80 per cent of the citizens remained in their zip code. The Latvian government gathered data from local

telecom to anonymised location which provided knowledge of crowded places and the government used the data to enforce the law in preventing people from gathering (Klonowska & Bindt, 2020). However, it is argued that the accuracy of location is dependent on the density of antennas and the availability of GSM protocol technique (Klimburg, et al, 2020). The French government was more in favour of drone technology as a most effective measure to contain the spread of the coronavirus.

3.37. The Outcome of the Measures Adopted in EU Member States

The adoption of digital technologies as a measure to contain the spread of the coronavirus was one of the best strategies implemented by EU Member States. The technologies provided data for policymakers to take appropriate and timely decisions in mitigating the virus in terms of outbreak tracking, treatment of infection and manufacturing of the vaccine (Pham et al., 2020). The use of technologies as a measure has helped governments to act on societal and economic implications of the spread of coronavirus pandemic.

3.38. The Technological Impact in the US

Artificial Intelligent (AI) and big data made it easier for the US government to contain and prevent the spread of coronavirus. Tools such as migration maps uses mobile phone signals and mobile payment applications to collate real-time data on the user location (Johns Hopkins University, 2020). The mobile data collected were used to mitigate the spread of the virus in keeping people within the isolated vicinity.

3.39. Measures Adopted in the US

The US government used numerous technologies to contain and prevent the spread of the virus. For instance, machine learning models were developed to predict the dynamism of regional transmission of the coronavirus and is used for border checks and surveillance. The US government adopted digital technologies to collate real-time data to contain and prevent the spread of coronavirus. The dashboards technology was utilised for time-series charts, geographic maps, clinical trials, contact tracing and community surveillance (Budd, 2020). Digital technology was pioneered by the US government to provide remote care to patients with mild or moderate coronavirus illness in their homes (Whitelaw et al., 2020). Anonymous data on mobile device locations were used by the US government to monitor the population (Allcott et al., 2020). Each US county used GPS data to ping mobile phones applications in order to determine pedestrian traffic patterns in locations such as restaurants, cinemas, hospitals and retail stores.

3.40. The Outcome of the Measures Adopted in the US

Digital technology used to quarantine individual that were infected or exposed to someone that was infected with coronavirus reduced the spread of the virus. Despite all the technological measures adopted to mitigate the spread of the coronavirus, digital health interventions such as those used for tracking individuals and enforcing quarantine rules can

undermine privacy. The surveillance by the government created fear and threaten civil liberties (Eck & Hatz, 2020). The AI prediction and contact tracing applications had their pitfalls (Soltani et al., 2020).

3.41. The Environmental Impact

The other "E" in the PESTEL represents the "Environment" and includes the ecological factors which require organisations to make policies that have direct impact on the ecosystem (Sexton et al., 2000). The impact of environmental factors on business is reflected on the intensity of their Corporate Social Responsibility (CSR) activities, eco-friendly Research and Development (R&D) investments, as well as the level of commitment to ethical practices (Arefyeva, 2020).

The global lockdown measures enforced by governments as a result of the coronavirus pandemic gave respite to the environment from pollution (Nigam et al., 2020) The coronavirus indirectly contributed positively towards the UN 2030 Sustainable Development Goals by reducing greenhouse gas emissions, outdoor air pollution and environmental noise level (Shulla et al., 2021). However, the coronavirus pandemic increased the use of single plastics (including PPE) due to change in the pattern of shopping from in-store to home delivery. Also, waste management shifted from recycling to incineration which had a negative impact on the environment (Ray et al., 2022). Additionally, the pandemic impacted wildlife to the extent that conservationists were required to work day and night in order to monitor and protect endangered species (Manenti et al., 2020).

3.42. The Environmental Impact in the UK

Positive outcomes from the lockdown were experienced even when the world stood still, and particularly in the UK. It is noteworthy that the impact of the coronavirus pandemic on the environment came indirectly because of the responses to the virus. However, the abrupt limiting or closure of economic sectors such as hospitality businesses, transportation and heavy industries were the main factors that contributed positively toward lowering pollution levels during the lockdown.

The working from home measure introduced by the UK government had both positive and negative impact on the environment. Reduced level of travelling during the lockdown helped in lowering the emissions due to less commuting by public transport and driving of cars, while household cooling and heating increased emissions as people worked from home (Ishwaran, et al., 2020). In addition, the closure of borders for international travelling led to a sharp decline in flying which lowered emissions and had a positive impact on the environment. The restriction had a knock-on effect on the travel industry used by airlines. However, reduced commuting and flying has resulted in staycation that boosted the local economy. Additionally, active travelling such as cycling, and walking doubled during the weekdays and tripled at the weekend compared to pre coronavirus pandemic (Robinson, 2020).

3.43. Measures Adopted in the UK

Since the outbreak of the coronavirus pandemic, the UK government has opted for green investment in renewables and energy efficiency as means of delivering jobs in comparison to traditional stimulus measures (Her Majesty Government, 2020). The new environmental priorities make the measure attractive as they can create skilled jobs that are geographically distributed (Stern et al., 2020). The government expressed the intention of investing £12 billion for a greenhouse industrial revolution as a long-term support of financial assistance for low-carbon transport and Carbon Capture and Storage (CCUS) development in November 2020 (Her Majesty Treasury, 2020). Despite the government investment initiative, it is argued that such stimulus is effective only in the long run, as opposed to short-term growth, which the economy urgently needed in the pandemic era (Popp et al, 2020) and others have documented that numerous green recovery policies post 2008 crisis needed a considerable amount of time to be implemented (Zenghelis & Rydge, 2020).

Further measures were announced by the government to encourage green skills by launching the Lifetime Skills Guarantee which intends to assist adults in gaining qualifications in areas such as engineering (Department for Work and Pension, 2020). There was also encouragement for private investment in offshore wind turbines that can eventually domesticate part of the energy supply chain (Allan, et al., 2020). The government provided over £95 million in support of the scheme for two years for short courses that will enable people to retrain for new career paths. It is argued that the availability of the scheme that is guaranteed for those without A-levels or equivalent qualifications excluded more than a million paid workers (Department for Work and Pension, 2020, April).

To maintain the lower emission standards experienced during the lockdown, the government took measure to support local authorities in installing Electric Vehicle (EV) infrastructure for On-Street Residential Charge points Scheme with the sum of £20 million (Marix, 2020). The government increased the amount of funding after concerns were raised over high grid connection cost for charging points. In comparison to other countries, the UK government offered minimum support to persuade people to transition to EVs. Even after setting high goals of phasing out petrol and diesel cars sale by 2030, the government is yet to set the road map in how to achieve the goal of delivering the infrastructure (House of Commons Committee of Public Accounts, 2021). It is argued that the government initial commitment of £2 billion for EVs and £27 billion for roads, strongly indicates that EVs are of less importance. The government investment in the low-carbon economy would generate employment and foster the UK government in attaining its legal commitments made in Paris Accord and equally encourage a sustainable economic recovery from the coronavirus pandemic crisis (Berry et al., 2020).

3.44. The Outcome of the Measures Adopted in the UK

From an environmental perspective, the outbreak of the coronavirus had a positive consequence in the UK, ascribed to limited mobility which helped to improve the air quality and reduction (Chavel, 2020). However, the UK government's policy also had negative

environmental consequences. Measures to curtail the spread of the virus has increased the volume of nonrecyclable waste and large-scale quantities of organic waste generated because of diminished agricultural export due to the lockdown measure (United Nations Conference on Trade and Development, 2020). Every household in the UK experienced extra heating costs during the lockdown. UK homes remained energy inefficient and draughty resulting in further costs as people stayed and work from home including children that were home schooled. For the UK government to meet its climate targets, improvement in insulation will help alleviate extra heating costs (Hepburn et al., 2020).

3.45. The Environmental Impact in the EU Member States

To contain the spread of the coronavirus, a series of unilateral and collective measures were implemented by governments in EU Member States ranging from travel restrictions to complete lockdown and temporary closure of educational institutions. These measures resulted in favourable outcomes on the environment with regards to pollution as streets were deserted, flights cancelled, and factories were closed (Meles et al., 2020). Greenhouse gas (GHG) emission dropped in proportion lower since World War II (Global Carbon Project, 2020). The lockdowns, quarantines, border closures and social distancing policies by governments played a major contributing factor to reductions in air pollution. As much as the changes might be temporary, the changes in our lifestyles had a positive effect on the environment.

The air pollution in EU Member States reduced drastically when the governments introduced the stay-at-home measures to contain the spread of the novel coronavirus. Industries and regular constant activities all ground to a halt. For example, there was a limited use of cars that contributed to greenhouse gas which led to reduction in Nitrogen Dioxide (NO_2) concentrations in countries such as France, Germany, Italy, and Spain (European Space Agency, 2020). However, the quarantine policies introduced in many countries created a new culture of greater demand for online shopping and home delivery. This resulted in more organic waste generation by households as food bought online is shipped packed (Zambrano-Monserrate et al., 2020). The generation of inorganic and organic waste created a wider environmental problem such as air and water pollution (Mourad et al., 2016).

The most effective way of preventing pollution, save energy and conserve natural resources is through recycling (Ma et al., 2019). EU Member States implemented waste management restriction in those countries that were most affected by the pandemic. For example, the Italian government prevented those residents infected by the coronavirus from sorting their waste. After the outbreak of the coronavirus, there was a steady increase in medical waste and PPE such as masks and gloves (Sarkodie & Owusu, 2020).

3.46. Measures Adopted in the EU Member States

A series of measures were undertaken by EU Member States to reduce pollution levels after the outbreak of the coronavirus. A recovery plan was extended from 2021 to 2027 which requires Member States to commit 30 per cent spending on the transition to net zero (European Commission, 2021). The German government pledged €11bn (0.32% GDP) reduction in its renewable energy levy and a further €7bn (0.2% GDP) for the country's hydrogen strategy.

The French government set aside €30bn (1.24% GDP) of the country's recovery plan for climate transition which includes provisions for retrofits and low-carbon transportation (French Government, 2020). Additionally, the French government attached environmental conditions in its support of €1.5bn (0.06% GDP to Air France to develop low-carbon aircraft. EU Member States also imposed restrictions in international travel to combat the spread of coronavirus. Regional quarantine and lockdown measures were introduced in several parts of EU Member States.

3.47. The Outcome of the Measures Adopted in the EU Member States

Restrictive measures to prevent the spread of the coronavirus by EU Member States on transportation, businesses and closing of industries contributed immensely to reduction in GHG emissions compared to pre coronavirus outbreak years (Shehzad et al., 2020). In the first quarter of 2020, the International Energy Agency (IEA) recorded 25 per cent decline in energy demand in countries with full lockdown and an average of 18 per cent in countries with partial lockdown (International Energy Agency, 2020). The lockdown from coronavirus also improved water quality notwithstanding the huge medical waste inappropriately disposed in the environment. The Copernicus Sentinel-5P satellite showed a reduction in NO_2 concentrations over Rome, Madrid and Paris: the first cities in the EU that introduced strict lockdown measures (Zambrano-Monserrate et al., 2020).

The social distancing and quarantine measures substantially reduced commuting for employees as many jobs shifted to working from home. The restrictions in travel also led to decreases in the use and demand for oil and its by-products which resulted in reduction of smoke and waste due to less consumption. The National Aeronautics and Space Administration (NASA) and European Space Agency (ESA) reported significant reduction in nitrogen dioxide air pollution as a result of community quarantine and lockdown (El Zowalaty et al., 2020). Beaches in the EU Member States became cleaner as less waste was generated by tourists because of social distancing measures introduced by the governments. Noise levels fell significantly in most countries due to the reduction in the use of private and public transportation as well as commercial activities (Zambrano-Monserrate et al., 2020).

3.48. The Environmental Impact in the US

There was improvement in air quality and a reduction in water pollution in part of US cities caused by restriction of movements imposed (Rupani et al., 2020). For example, closing of companies brought a sudden drop of greenhouse gases (GHGs) emissions which reduced the level of air pollution in New York by 50 per cent due to lockdown measured adopted to control the virus. However, like every part of the globe, a growing amount of domestic waste is confirmed in every part of the US due to lockdown imposed by the government, causing concern to the United States Environmental Protection Agency (USEPA). The quarantine regulations influenced a pattern of shopping behaviour which drastically changed from traditional to online shopping leading to increased amount of waste that were not properly dispose (Sharma & Jhamb, 2020). The use of face masks, hand gloves and other PPE for protection from viral infection has increased the amount of healthcare waste in the US (Calma,

2020). The improper disposal of PPE in open places and in some cases with household waste created clogging in water ways and worsened environmental pollution (Rahman et al., 2020).

3.49. Measures Adopted in the US

The lockdowns measure enforced by the US government inhibited movement, prevented international and local travel, closed schools, colleges and universities (Wilder-Smith & Freedman, 2020). International travel bans cut the number of flights that lower the consumption of fossil fuels which in turn lessened GHGs emission that helped to combat pollution (Rupani et al., 2020).

3.50. The Outcome of the Measures Adopted in the US

There were increased volumes of medical waste in the US while the focus on plastic restrictions and pollution regulations has changed towards controlling and preventing the spread of coronavirus (Yu et al., 2020). Several states ceased their recycling programmes, as authorities were concerned about the risk of spreading the virus in recycling centres thus prioritising incineration and landfilling. Such precautionary measures resulted in inappropriate waste management as PPE were discarded with empty bottles of hand sanitisers and organic solid waste (Ma et al., 2019).

3.51. The Legal Impact

The "L" in the PESTEL represent legal factors that involves regulations which control business activities (Anderson et al., 2019). The legal aspect of business is centred on compliance and enforcement of legislation, such as antitrust law, patent infringement, employment regulations, employee safety and health regulations, that set the parameters according to which businesses operates. Legal measures played an important role in containing and preventing the spread of coronavirus globally. Governments resorted to reviving their healthcare legislations or promulgated new legislations to restrict the movement of their population in order to halt the spread of the coronavirus. The measures taken by governments in response to the coronavirus highlighted the difficulties that involved trade-offs between civil liberties and the need to protect the general public (Orzechowski et al., 2021). During the outbreak of the coronavirus, most governments decided on using technology for mass surveillance as a primary mean of controlling the citizens (Kitchin, 2020). Arguably, the severity of the virus demanded that public health trumps civil liberties.

3.52. The Legal Impact in the UK

The Coronavirus Acts 2020 contributed to the UK government enforcing policies that were aimed to reduces the spread of coronavirus, minimised the running cost of public bodies and reduced the labour shortfall required to deliver the essential public services (Coronavirus Act 2020, s 2 – 8). The Secretary of State for Health and Social Care is compelled by the Act to report every few months on how the entrusted power is exercised. In March 2022, some of the provisions expired automatically and other provisions requires parliamentary review every

six months (Coronavirus Act 2020, s 89-92). The Coronavirus Acts 2020 has empowered the Scottish government and Northern Ireland Executive to make 'lockdown' regulations to reduce the spread of the coronavirus (Coronavirus Act 2020, s 48-49). The Act also gave authority to the Treasury to formulate the financial schemes such as the furlough. The Act went further to empower the electoral commission to postpone elections for police and crime commissioners, mayor and local government elections that ought to have been held from May 2020 to May 2021 (Coronavirus Act 2020, s 75).

3.53. Measures Adopted in the UK

The Act transformed the legislative paradigm through technology in allowing witnesses at court proceedings to be shown by live link rather than in person. The coronavirus pandemic has expedited the digitisation process that courts in England and Wales has been seeking since 2016 (Coronavirus Act 2020, s 53-57). Ministers, including the devolved administrators are empowered by the Act (Coronavirus Act 2020, s 52) to limit or prohibit gatherings or events, as well as restrict access or close down premises.

Retired pensionable NHS employees were permitted to return to work and help alleviate the labour shortage as a result of the Act that was promulgated. The government's intention was to encourage retired health professionals to return and assist with their impeccable skills (Coronavirus Act 2020, s 45-47). In addition, the Act permits the registration of medical students nearing the completion of their training, social care professionals and those who recently left their profession. The number of hours normally restricted to work by return of NHS staff was abolished and the Act also facilitates emergency volunteering (Coronavirus Act 2020, s 2 – 9). Ministers can use the Act to temporary close schools or registered childcare providers.

3.54. The Outcome of the Measures Adopted in the UK

Concerns were raised in the UK about the emergency measures taken by the government in promulgating the Coronavirus Act 2020 since it creates room for potential clash between freedom, privacy and public health measures. The authorities are empowered by the Act to detain individuals they suspect to be infectious and within the power to take sample of their saliva by force. Individuals changed pattern of their movement when they became aware of the surveillance and tracking efforts by the government with the purpose of trying to curtail the spread of the virus.

On a positive note, the lockdown measures introduced by the UK government encouraged local tourism as it created domestic travel called staycation. The coronavirus pandemic has caused financial challenges for many people due to job losses. International travel restrictions with added complexity of documentations and the requirement for testing prior to travelling discouraged many except when it was necessary However, staycation is very expense compared to travelling to another holiday destination (Moon & Chan, 2021). Even the local restriction measures such as social distancing of 2 meters and the likelihood of getting infected by the coronavirus locally did not encourage staycation.

3.55. The Legal Impact in the EU Member States

Four types of legislative measures (constitutional states of emergency, statutory regimes, measures adopted under special legislative powers and measures adopted almost exclusively under ordinary legislation) were implemented by the 27 EU Member States to mitigate the spread of the coronavirus pandemic (European Parliament, 2020). The constitutional state of emergency was adopted by 10 Member States, while the statutory regime was used by four Member States and five Member States resorted to special legislative powers to prevent the spread of the virus. For example, Portugal used the state of emergency provided by the constitution, statutory regimes and ordinary legislation. On the While on the other hand, Austria, Cyprus, Denmark, Netherland Ireland, and Sweden adopted ordinary legislation to prevent the spread of the virus. Where a constitutional state of emergency could not be declared in Member States, the executive resulted to special legislative powers (Italy) to mitigate the spread of the virus. Also, there were Member States (Crego & Kotanidis, 2020) that created enabling laws that either pre-existed or were formulated *ad hoc* to mitigate the pandemic (Germany and Slovenia).

3.56. Measures Adopted in the EU Member States

The Parliaments in all Member States played a prominent role in the process of managing the coronavirus crisis by promulgating legislation based on policy directives from their governments. Many countries had to pass new legislation or amend existing laws to enable governments to adopt measures required to contain the spread of virus. Temporary measures were adopted in some cases such as quarantine or lockdowns in areas where the virus was evolving rapidly which provided needed powers to the governments for decisive decision making. Promulgated coronavirus legislations made it easier to expend resources to procure equipment and PPE in mitigating the spread of the coronavirus (European Parliament, 2020).

Member States closed their borders, quarantined citizens and non-citizen in their territories and non-EU citizens were not allowed to the Schengen area and other countries applied the same restrictions to combat the coronavirus (Turanjanin & Radulovic, 2021). However, many refused to abide by the restrictions, and this resulted in further infections. For example, a patient in a hospital in Bosnia and Herzegovina declined to tell others of their returned journey from Italy and infected the whole hospital.

3.57. The Outcome of the Measures Adopted in the EU Member States

Some of the lockdown measures created resentment amongst the population as many were economically disadvantaged. Many members of the society believed the lockdown to be scientifically unsupported and the restrictions were unjust. People felt strongly about the violations of their civil liberties such as the freedom of peaceful assembly (Article 20 of the Universal Declaration of Human Rights). In contrast, some Member States deemed that the early lifting of the restrictions was at the expense of human life in pursuit of reopening business activities (Alder et al., 2020). In general, the restriction of movement could be accounted as one of the best measures to control the spread of the virus, however, it was also used to prevent

mass gatherings and supress political opposition as witnessed in Spain (Amnesty International, 2019).

3.58. The Legal Impact in the US

Between March 2020 and April 2020, the US government enacted four pieces of legislations that granted a total of US$3 trillion on spending and tax cuts. This legislation supported coronavirus relief packages as a measure for social intervention to fund healthcare, research, services, and education (Moos, 2021). Legislations was used in enforcing the restriction of movement to contain and prevent the spread of coronavirus in the US. The Federal Public Health Services Act empowered the Centre for Disease and Control (CDC) to detain, medically examine, and quarantine persons traveling between states or into the US if there were suspicious of infected with transmissible diseases (42USC§6A 2016). Under the legislation, CDC agents can hold a coronavirus infected person for up to 72 hours, offer medical testing and consensual treatment at the government expense.

3.59. Measures Adopted in the US

The Coronavirus Preparedness and Response Supplementary Appropriations Act (Public Law 116–123) signed March 2020 was the first bill passed by the Congress as a measure to give financial support by the Federal Reserve to actions aimed to mitigate the coronavirus. The financial allocation was to increase domestic discretionary spending of $8 billion funds to support the development of vaccines and other epidemiological requirements (Amnesty International, 2019). In March 2020, the Families First Coronavirus Response Act (Public Law 116–127) was signed by the President, for approximately $192 billion as a further measure to mitigate on financial needs resulting from the coronavirus pandemic. The bill included spending on unemployment benefits with the federal government covering the total cost rather than the normal 50 per cent. The legislation relaxed the need to receive the Supplemental Nutrition Assistance Program (SNAP) (food stamp) benefits but created alternative ways for the states to supply meals to children impacted by school closures (Congressional Budget Office, 2020).

In March 2020, President Trump signed the Coronavirus Aid, Relief and Economic Security (CARES) Act (Public Law 116–136). It was the most extensive legislative measure taken by Congress to mitigate the coronavirus expenditures. The estimated spending of $1.7 trillion was to cover a period of 10 years with most of the spending to occur in the first two years. The financial assistance was intended to alleviate the economic burden experienced by individuals, businesses and governments. Small businesses were allocated a total of $377 billion for Paycheck Protection Program (PPP), a total of $170 billion in funding for medical care responses and a refundable tax credit of $1,200 per qualifying adult and $500 per dependent child (Philip & Prabowo, 2020). The Paycheck Protection and Health Care Enhancement Act (Public Law 116–139) was the fourth bill passed by the Congress and signed by the President in April 2020. The bill is narrow in scope with discretionary expenditure under $500 billion, one-third available to be spent when necessary and two-thirds for increasing direct spending. A sum of $75 billion was provided to reimburse healthcare providers for lost revenues, and $25 billion was allocated for several nutritional and rural programs. Further sum

of $62 billion was provided for salaries and expenses, and a total loan of $377 billion was made available for Small Business Administration (Philip & Prabowo, 2020).

3.60. The Outcome of the Measures adopted in the US

An expansive financial leverage was given by the CARES and Families First Acts mainly the low-earning population. The Acts allowed for two weeks' job-protected sick days pay, (strictly for coronavirus related absence) of approximately 65 million private-sector and 22 million public-sector workers. In many cases the money would have been used for childcare purposes (National Partnership for Women and Families, 2020). Prior to the coronavirus outbreak, the US government rarely considered any expansion of job protection or paid leave. However, the outbreak of the coronavirus has made the US government to consider it a measure to mitigate as a financial cushioning for the population (Brian, et al., 2020). In precluding firms with more than 500 employees from the paid leave in the provisions, 59 million workers were automatically denied protections, and a disproportionate number of whom were women of colour.

4. Discussion

The SWOT acronym derives its name from the words strengths (S), weaknesses (W), opportunities (O), and threats (T). The S and W acronym are related to internal factors, while the O and T represent environment influences. Opportunities are external factors that have a positive interaction with the system, while the negative effects to the system environment represent Threats to the system. The result of the SWOT analysis can be used for selecting appropriate criteria for mitigating the spread of the coronavirus pandemic. In critically analysing the external influencing factors (PESTLE) identified by the spread of the coronavirus, the SWOT analysis seeks solutions from the internal strengths and weaknesses by evaluating how the government policies functioned in mitigating the virus. Additionally, it examines the threats and opportunities as well as, the external factors created by the pandemic.

5. Strengths

The UK government is endowed with a labour force that is ready to be trained and re-trained which is shown with the level of unemployment after the outbreak of the coronavirus pandemic. These employees that were made redundant after the furlough scheme as businesses went into liquidation can be retrained in other sectors. Also, the younger population can be trained in apprentices' scheme to boost the UK labour force after the completion of their training.

Fiscal stimuli provided by EU Member States in critical time of the coronavirus pandemic clearly manifested the strength of the European Union. The buffer fund set aside when the Member States were experiencing trading surplus enabled this swift response. The coronavirus pandemic also provided an opportunity for the EU Member States to build on their strength in innovation and to reboot their economies by creating employment in green sectors. With commitment from all Member States, they have economies and manpower resources to support climate action (European Commission, 2020).

The US government has the financial and human resources strength to refocus on developing all the sectors of the economy. The outbreak of the coronavirus precipitates the prerequisite for the US government to transform the sectors in order to maintain its global dominance. It is necessary for the US government to separate production and consumption activities between 'physically interactive' and 'physically disjointed' as they appear to be a growing discrepancy between growing demand in the latter sectors and a complete decline in demand in the former. While companies such as Amazon or Netflix are flourishing and seeking for more people to employ, other sectors such as hospitality and travelling, are making workers redundant. The government needs to play a dominant role in transforming the labour force (Snower, 2020).

6. Weaknesses

The coronavirus revealed the UK government's weakness in the structure of the welfare system which is contributing to a high level of financial constraint on the poorer members of the society. The financial difficulties are extended to the housing sector, as increase in the precarious low-paid work makes rental payments unaffordable. With the loss of income encountered by some groups and the failure of the welfare state, many are therefore dependent on the government for financial support with Universal Credit (UC). The UK government has long under-taxed certain parts of the population (Berry et al., 2020) and thereby hindering the proper funding of the welfare system with financial resources.

Cross-border cooperation to share data and coordination was difficult amongst some EU Member States due to differences in national legislations. Regardless of this there is a need for private and public cooperation in order to build and provide rigorous ways to utilise data and maintain individual liberties, privacy and security.

The US government's health care policies limit its responsibility and allows the sector to market forces to determine the health care provision of the population. The health care providers such as Medicare, Medicaid and others were heavily impacted by the outbreak of the coronavirus pandemic as they were unable to meet the demand. The government could not determine on how those healthcare providers were running services to cater for their insured members of the population. The US government's direct investment in the healthcare sector would have given it a part control in coordinating the resources to mitigate the pandemic.

7. Opportunities

The UK government can take the opportunity from the coronavirus pandemic and build on its human resources by investing in apprenticeships schemes to train unemployed youth and low-paid workers. This strategy will help in rebuilding the economy in supporting the unemployed and low-income employees as a direct intervention to expedite economic recovery and reducing their dependence on the government. In the absence of government investment, the skills inequalities will exacerbate as corporations continue to direct resources away from development and training (Boeren, 2020).

EU Member States can formulate a better coordination in periods of crisis to avoid the duplication of relief efforts as coronavirus has exposed lapses. Resources such as medical supplies, equipment and medical personnel were not coordinated to the requirement of Member States. The efficacy for proper coordination of resources needs continuous cooperation and

solidarity (Sovig, 2020) EU Member States has a greater opportunity to learn and improve in planning for all infectious disease outbreaks. Also, there is scope for smarter use of technology that already exists, as artificial intelligence was used for diagnosis and modelling the spread of the coronavirus (McCall, 2020).

Opportunities to improve health care policy have been created by the coronavirus for the US government to prevent the differences occurring with the marginalised groups that had higher mortality rates (Golden, 2020). A new health care policy can deal with the causes of significant socio-economic and health problems that impact the marginalised in the US society (Hostinar & Miller, 2020). Failure by the US government to take this opportunity and improve the healthcare sector now will lead to continuous reactive measures as opposed to been proactive ones, ahead of a future health crisis.

The UK government, the US and EU Member States can move towards decarbonisation after the positive outcomes on the environment as a result of the measures adopted. The governments need to pursue a green industrial policy and avoid environmentally destructive economic practices. Contracts awarded to firm and industry by the governments must incorporate an element of sustainability which will maintain the level of pollution at the extent experienced during the period of the lockdowns (Berry et al., 2020). The governments must not lose focus on intensifying on green stimulus projects in order to ensure sustainable recovery rather than embarking on short-lived and non-environmental programmes.

8. Threats

Those seeking to enter the labour market have been facing stagnation and diminished vacancies prior and during the coronavirus pandemic. Part of the problem is the UK government's inadequacies in formulating industrialisation policies that can create job opportunities. This is evident during the pandemic as the UK failed to produce ventilators, testing kits, protective gear for healthcare sector. The government became over-dependent on international supply chains to meet short-term demands. while the initiative for long-term plans for local production is still lacking (Foster & Pooler, 2020).

Since the outbreak of the coronavirus, EU Member States are facing further wave of Euroscepticism and nationalism. This obvious threat necessitates further consolidation of the Member States as the coronavirus has exacted a heavy human toll across national borders. The coronavirus pandemic requires Member States to consider decentralising councils at local and regional levels in preparation for future crisis. During emergency situations, citizens at the local council level can be involved in the decision-making process.

The US government overly exposed itself by relying heavily on foreign supply for essential commodities such as medical equipment and PPE during the outbreak of the coronavirus. To circumvent the predicament, the US government needs to look at various ways to incentivise local companies to produce essential products especially in the times of crisis. Local production can reduce reliance on international suppliers. Although, some goods produce locally might be more expensive because of higher labour cost opposed to cheaper imports.

9. Contribution

This paper has contributed immensely by using the PESTEL model to aggregate the impact of coronavirus to all stakeholders. It has given opportunity to stakeholders to address their future set objectives after reflecting on those identified problems. The paper went further to expose the significant difference in the socio-economic systems in all the jurisdictions examined.

Whistleblowers in the UK, the US and EU Member States were not accorded the necessary legal protection when they reported misconducts during the outbreak of the Coronavirus. Efficacy of this research helped identify loopholes in the existing whistleblowing legislation that should be amended for effective protection of whistleblowers. Also, the findings from the research exposed the cost implications of COVID-19 related malpractices and highlights the consequences of retaliation against whistleblowers. This paper also looks at relevant provisions in the mentioned jurisdictions that can be used to protect and compensate COVID-19 whistleblowers.

10. Concluding Remarks

Global efforts have been made to slow down the spread of the coronavirus with measures ranging from testing and treating patients, contact tracing, travel ban, quarantining, cancellation of large gatherings in sporting events, concerts and schools. Some countries were fast in effectively containing the spread of the virus, while others were slower due to various reasons. The most effective measure implemented since the outbreak of the coronavirus that significantly slowed or reversed the spread was immediate isolation when individuals became infected. Testing and contact tracing, social distancing and continued washing of hands also reduced infections (Bueno, 2020).

Proactive policy measures to upgrade the healthcare sector need to be implemented by governments globally in order to avert future health crisis. It is evident that most governments underfunded their healthcare systems, thereby impeding them from actively managing the coronavirus pandemic due to shortages in material and human resources. The disparity in the mortality rates from the coronavirus pandemic gave a clear indication to the governments around the globe to shift from the current paradigms that disenfranchise some members of their population. Governments need to implement economic policies that will emancipate the marginalised in the society as pervasive structural and systemic issues have impacted on the wellbeing of the disadvantaged (Belgrave & Abrams, 2016).

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