General Management in Lockdown

Economics and Management
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With special thanks to Dr Eamonn Molloy for supervising this project and to Emily Elviss for her continued support to this cohort.
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Foreword

Dr Eamonn Molloy
Fellow and Tutor in Management

The General Management course at The University of Oxford constitutes approximately one third of the first year of the three-year Economics and Management Bachelor of Arts Degree. The other two thirds of the first year cover Economics (Micro and Macro) and Financial Analysis and Reporting.

For the General Management component, students attend weekly lectures at the Said Business School and Tutorials in College. Each week, the students are required to submit an essay on a topic decided by their Tutor and this is normally, but not always, the subject of the Tutorial. This pattern exists for the first two terms (Michaelmas and Hilary) and at the beginning of each new term students are required to sit a collection exam which helps them keep track of their progress and also provides them with an academic focus during their vacations. At the end of Trinity Term in their first year, students are required to sit a more formal Prelims Exam, the results of which determine whether or not the student can demonstrate sufficient knowledge and understanding of relevant course materials to progress to their second year of study.

This means that the revision Tutorials that students undertake in Trinity Term of their first year are critical for establishing a solid foundation for the advanced work required to finally graduate. This year, the growing threat from the global COVID-19 pandemic led to Prelims being cancelled and students being advised at short notice that they could not physically return to College in Trinity. As their Tutor, in response I convened an initial meeting with all eight of the Pembroke College First Year Economics and Management students via the Microsoft Teams platform in order to work out a way in which we could ensure that the relevant consolidation and synthesis of their first two terms’ work could take place under the new conditions.

What they produced is this impressive collection of articles which not only shows insightful analysis and application of theory to live, real-time cases of organisations struggling to adapt to the pandemic shock, it also demonstrates how agile, adaptive and collaborative the individual contributors are both in a group and as a group. Personally, “General Management in Lockdown” has been far more enjoyable, educational and inspirational than I could have imagined. I hope it is for you too.

Dr Molloy is internationally recognised for his research and executive-level teaching in the areas of complex organisation design and technological change, with particular emphasis on the strategic dynamics of temporary project, programme and portfolio-based organisations, and the role of technology in professional and organisational change.
Introduction

Daisy Meade

As organisations adapt to a flexible way of working, we too have adapted how we study the General Management course to a way that revised content and challenged us to consider what we have learned in a new light. The work presented by this group is a collection of research into different businesses, industries and sectors and how each have been impacted by COVID-19. Each contributor has selected an area of particular personal interest and extensively researched the topic, presenting a deep analysis accompanied by management theory learnt throughout the General Management course. Not only has this method ensured an equal collaborative effort, but the final product is so much more than the sum of its parts. In doing our own research and coming together to discuss common themes and differences, we have been able to gather a clearer overall picture of where businesses are focusing their energy and what others may be doing differently to combat similar challenges. This format has also allowed each of us to apply what we have learned over the last academic year to a realistic environment and tests its validity in the face of the external shock COVID-19 has created. Breadth and depth in our research has provided a fair evaluation of how management theory can be used in the practicalities of business survival and emergency response, each of us examining this process under a slightly different lens to create a variety of original perspectives.

Industries focused on included cinemas, international airlines and supermarkets. Each of these have suffered major losses over the last few months, as their respective business models depend upon the consumer being situated in an enclosed space unsuitable for social distancing. With fixed seating for instance in a cinema or a plane, industries are facing little choice but to respond to their governments as national regulations form a greater obstacle than any other. For the supermarket industry the changes that have been made were imperative for life to continue for the general public with a degree of normality whilst remaining safe. Once again national regulation dictated certain measures regarding social distancing. In particular, supermarkets had to deal with both a demand and supply shock as people panicked to stock up on essential goods. On a large scale, the implications of such swift changes had required the use of management theory as the future of their operations that one was relatively straightforward has now become as uncertain as other industries.

Nonetheless, the size of a business does not necessarily ensure protection from the fragilities COVID-19 has exposed, and in some cases presents a further complication. The success of small industries discussed by both Meade and Wright highlight the importance of flexibility when dealing with a powerful exogenous shock; a theme that runs across many of our studies due to the common observation of future uncertainties. Taking into account the international effect of COVID-19, logistical difficulties and general major disruptions to normal work puts into question whether the current structure of a business stands it in better stead for how they move forward and survive. The importance of scale for a firm is examined more closely, for example Wright’s study of the successes of small businesses showed that being a part of the local community serves a greater purpose in times of crisis. The priorities of both the producer and consumer shift towards survival, fuelled by empathy. Theory has been used to highlight this further as focus is placed upon the culture both within the business and incorporated
from the external environment for instance by applying Hofstede’s Four Organisational Cultures (1980)\(^1\).

Technology and how it will be used by businesses moving forward is also a topic extensively discussed throughout our work. For many non-technology firms communications may be the single most common use for research and development. However as discussed further by Jones, the ever-expanding range of applications of technology in business may be growing further still. Just like the airline industry though, this may not be without political influence. Furthermore, changes set in motion across several industries may instead be a reflection of accelerated change excused by the Coronavirus pandemic. Future uncertainty in its use is dominated by government advice and action. The technologies adopted into mainstream use at an accelerated rate reflect the need for institutions to react immediately and effectively, despite also retaining a level of caution. The NHS is another key organisation that has needed a dynamic approach to its handling of the pandemic, and therefore plans made for the future must reflect both current dangers and future risks of action or inaction. Exploring whether strategic theory can be applied in this case revealed the extent to which management theory is actually used in practise, and whether in cases where survival is the main objective organisation turn to a more responsive approach to their environment.

An overwhelming conclusion that resonates from almost all chapters is that the extent to which management theorists can steer institutions in the right direction is hindered by uncertainty. Hastily remodelling how an organisation operates to make room for a global virus disrupts any future strategic plans such as growth as new objectives precede usual business. Tarrant’s evaluation of China’s influence in the financial sector only drives home this point further, as despite surviving a disaster of their own making at the end of the last decade, it is the pandemic that threatens the current structure of large institutions. Another clear observation is that due to a lack of clarity as to when or if operations can return to normal, businesses are struggling to adopt a blanket strategy that can efficiently operate in all external settings. Supermarkets practising social distancing and additional hygiene have no indication as to when these measures may relax so until that point (if it ever arrives), operational costs will continue to rise. Each article delves into these points further and explores in different contexts how or if theoretical strategic plans can be utilised when COVID-19 disrupts the normal market environment.

\(^1\)Hofstede, G., 1980. Culture’s consequences: international differences in work-related values.
How has COVID-19 impacted the evolution of cinemas?

Mayowa Ayanbadejo

After the boom following the Second World War and the subsequent development of the film industry cinema chains faced a new threat in the form of colour and cable TV. Cinemas were forced to make innovations to remain competitive. They upgraded to the multiplex model of today with expanded screens and seating areas, while also significantly increasing the number of movies shown per day. As cinemas began to focus their competitive advantage on mass viewership they moved away from a sentimental and immersive impact as companies such as Empire removed their art deco auditoriums and other key features. However, cinemas are once again being threatened by external competition and innovation, with the rise in popularity of streaming platforms such as Netflix and now recently Disney. Platforms who not only provide viewership at a lower price but also give access to thousands of shows and movies available to watch at any time. Through the use of Porter’s five forces (customers, substitutes, rivalry, suppliers and new entrants) we can analyse this problem that modern-day cinemas face as well as recognise the potential strategies that can be employed in the future. Especially after the shift in the business environment that has been caused by Covid-19 and the subsequent lockdown.

One of the main reasons movie attendance has declined is the rising number of options for film distribution. The market for consumer attention is becoming saturated, with the option to focus on radio, the internet, music, TV, movies and sports at any time. While also being surrounded by devices with the ability to do all of the above from devices from small 6-inch iPhone screens, to 70-inch 4k flat screen TVs with a wide range in between. People now only have to spend a small proportion of their time deciding what to consume as they are surrounded by options all from the comfort of their home. Combined with other leisure activities such as gaming, books, podcasts, and audiobooks cinemas face competition outside their industry as companies battle to monetise consumers’ attention and free time. All of these options combine to show why...
in lockdown, 70% of 73 cinemas are receiving lower attendance. The availability of the internet also has a secondary impact on audience size through the use of unlicensed streaming platforms. This has become an easy alternative for the youth as 40% admit to downloading films weekly. Yet, the underlying problem behind movie piracy is cost, which is a major barrier to cinema viewership. The average cost for a family ticket at VUE cinema is £38.40 (which consists of two adults and two children) while the cost of a premium Netflix account (which allows 4 users online at once) is only £11.99 a month - for 1/3 of the price customers can watch a wider range of films at any place and any time. The price is so detrimental that almost 20% of 15-25 year olds who plan a trip to the cinema cancel it as a result of the price.

Consumers have become disenfranchised with cinema and its appeal. For consumers in the mid and late 20th century, cinemas and theatres provided people an opportunity to escape from reality and to immerse themselves in a fantasy universe². This is why films are played in the dark on large screens and in silence so that the trance is maintained to enhance consumer satisfaction. This was one of the reason for cinemas large growth in attendance during the Second World War. However, with the evolution of cinemas to multiplexes there has become a distinction in the word used. Originally in the US, cinema and theatre were both used to describe the same venue. As cinemas changed the word cinema became predominately used to describe the place where you watch movies where there are multiple screenings at once. While theatres are Picturehouses that show only one or two movies at a given time where there’s more emphasis on the experience. These theatres resemble the stage theatres with whom they share a name and while they have lower revenues they aren’t under the same threat due to the niche they fulfil by focusing on consumer experience. On
the other hand, the Gen Z and millennial generations have grown up with screens as an essential part of life and thus don’t have the same escapist desires as generations before them. This has caused ‘going to the cinema’ to be a social activity rather than a leisure one as fewer than 1% of cinema customers go alone. With cinema-going habits being formed at a young age it is crucial to keep younger viewers attention as according to MPAA individuals who go to the cinema at least once a month account for 49% of ticket sales despite being 12% of the population. This is compounded by the fact that 15-24 year olds made up 28% of cinema admissions in the US despite being only 12% of the population[^3]. Thus, a decline in younger audience ticket sales now forecasts a bleak future for cinema.

As the world becomes increasingly digitalised so does the film industry. 2016 became the first year in which overall digital video consumption (retail and rental) exceeded physical formats[^4]. This was a slow transition due to the industries reliance on DVD sales and the prevalence of risk aversion in businesses. Consumer demand for Video on Demand (VOD) led to the emergence of the main substitutes and threats to cinema in the form of streaming platforms such as Netflix, Disney and Amazon. These streaming services stockpile libraries of movies and television by acquiring their licenses for studios before providing them all to viewers for a monthly subscription fee[^5]. This resembles the technology cycle of the technological discontinuity of physical VOD, followed by the era of ferment as companies failed to adapt quickly to this change, the dominant design of Netflix as a first mover, completed by the incremental improvement as Netflix continues to expand and enter the film market causing the number of top-200 films available to stream rising from 40% in 2014 to 80% in 2017[^6]. As digital VOD began to replace DVD and Blue-ray, streaming sites became the main players outside of cinemas in the film industry. But, these platforms were still mainly television based with Netflix top 10 most-watched in 2018 all being TV shows as well as TV shows accounting for 78% of Netflix viewership time in 2018[^7]. However, with the rise of brand owned content such as Netflix original movies on Netflix and Disney and Marvel films on Disney+, these streaming services are beginning to further penetrate the film industry. This is a result of the movie industry’s dependence on technology and innovation and thus its susceptibility to technological disruption. Netflix started by purchasing smaller-budget films that studios didn’t want to release, yet it’s only recently, with the development in original movies and the large number of views they receive (such as Bright which received 11 million streams in the first 3 days and over 70 million views in total) that studios and film producers are seeing streaming sites as an increasingly viable outlet to release films. Placing these companies in direct competition with cinemas.
But, this is all reliant upon filmmakers, studios and their decision making. Before the rise of streaming and digital VOD filmmakers and studios could only distribute their movies through cinemas. This provided cinemas as distributors monopoly power over studios and film producers, causing many cinemas to focus on big Hollywood blockbusters (known as ‘tentpoles’ because of how reliant the industry is upon them) through advertising campaigns and screens available for viewing. This is shown by the six major superhero films released in 2017 grossing a combined $4 billion but despite this, overall ticket sales fell by 6% and less than 20% of major movies released were able to make a profit. As their reliance on ‘tentpoles’ increased a gap in the market was left for streaming platforms. In an interview with ITV News Steven Spielberg said “Netflix is a challenge to cinema, the same way television in the early 1950s pulled people away from movie theatres … Hollywood’s used to that. We are accustomed to being highly competitive with television. The difference today is that a lot of studios would rather just make branded tentpole guaranteed box-office hits from their inventory … than take chances on smaller films. And those smaller films that studios used to make routinely, are now going to Amazon, Hulu, and Netflix.”

The increased possibility of releasing films online rather than in cinemas has now provided studios with monopsony power especially with studios like Disney who also own Disney+ accounting for 5 of the top 10 grossing movies of all time. This competition has led to a gradual but continual reduction in the time gap between when a movie is first released in cinemas and when it makes its way into digital copy and onto streaming platforms. This change in gap significantly reduces the revenue cinemas earn for a film after its been released on to home video and thus the window in which cinemas make a profit is slowly shrinking. However, this isn’t a major concern for cinemas as 90% of the top grossing films had their highest weekly gross in the first week. The trend for film revenue is increasingly becoming a large peak at the start followed by a short tail thus, reducing the time between cinema and digital release won’t severely impact earnings for cinemas. Despite having the ability to release films on streaming sites, few studios have actually done this, due to the disparity in revenue between box office films and streaming platforms. The top box office hits make in the region of billions of dollars, while the top streaming releases barely make hundreds of millions. With film budgets rising as they become more elaborate with stunts, animation and advertising, studios are reluctant to forgo the near guaranteed revenue in cinemas especially as they only receive a small
proportion of the profits. Thus, through Porter’s five forces we can see that all of the forces except from rivalry are a problem for cinema companies and are going to worsen over time.

Chandler argues that only “the first corporations in an industry to make essential, interrelated, three-pronged investments in production, distribution and management remained the leaders”9. Cinema companies are only in a position to make productive investment into two out of these three, due to the Paramount Consent Decree, which stops cinema owners from owning studios and producing films in the interest of keeping the market competitive.10 Out of the two remaining options, there has been a lack of development in the distribution technique of cinemas. Streaming sites on the other hand, have increasingly branched out into all three areas and have had new advancements in both production and distribution. As a result, it’s crucial that cinemas engage in new innovation into their distribution as the “Growth rate of firms is determined by the ability of firms to react to tech changes”9.

On the 23rd of March the UK entered lockdown as a result of Covid-19, during which citizens weren’t permitted to leave their homes without extenuating circumstances. As a result, cinemas were forced to shut down due to health and safety reasons. With this quickly spreading to the US as well where all cinemas were also closed. The Covid-19 pandemic has been extremely detrimental to Cinemas as their lack of technological advancements has left them exposed to this black swan event while their streaming site competitors have thrived. Not only have cinemas have received little or no revenue during this lockdown period, but it is likely to significantly damage revenue for the foreseeable future. All filming in Hollywood - Cinemas main suppliers – have been halted as well as the delay of several key box office hits as studios show their lack of confidence that the film industry will immediately bounce back once lockdown is ended. Examples include Marvel’s Black Widow, Top Gun, Disney’s Mulan and James Bond all being delayed to July 2021 at the earliest. This means that films won’t receive new ‘tentpole’ movies to display till mid 2021 severely limiting revenue as cinemas will most likely show older popular films. Secondly, with 97% of people surveyed by Vivendi having changed their entertainment habits since lockdown began, cinemas may not receive a steady number of consumers for a few months – especially as cinema capacity is limited by social distancing rules.

Lockdown also had an impact on suppliers, as film studios have seen decrease in their revenue due to delays in production and their inability to release new films. This led to a historic event for the film industry, as in an attempt to regain some lost revenue Universal Studio released Trolls World Tour online. It was the first major studio project released online, and was extremely successful generating over $100 million in revenue in the first three weeks which is more than the original made in theatres. Although this came at a time when millions of households were stuck at home and had no alternatives it has set a new precedent for the way films are released. With Universal stating “the results for Trolls World Tour have exceeded our expectations and demonstrated the viability of PVOD (Premium Video on Demand). As soon as theatres reopen, we expect to release movies on both formats.” There is usually a 90-day period between when a film is released and when its available digitally, however the success of Trolls World Tour has given studios increased confidence to release films online especially as they typically receive 80% of the revenue from online releases as opposed to under 50% in cinemas11.
This poses a huge threat to cinemas as Studios now have monopsony power in the market and could eliminate a majority of cinema revenue. As resource dependency theory states, by entering a market where their suppliers have access to valuable resources, cinemas have given studios power. The effect of this was limited when cinemas were the only film distributor, but with the development of streaming sites this now poses a huge problem for cinemas. This issue was recognised by cinema owners when the CEO of AMC Theatres, the biggest cinema circuit in the world, issued a statement saying that AMC would no longer show any Universal movies as a result, and that this response would be the same for any studio that decides to release their films digitally at the same time as their cinema release. While this may deter some studios, it may not be enough to deter the likes of Disney who would receive huge gains in revenue by releasing films on their streaming platform Disney+\(^1\). Especially as blacklisting Disney - who own 5 of the top 10 grossing films of all time – may not be financially viable for AMC. This prompted the National Organization of Theatre Owners (NATO), a group who represents over 33,000 cinemas in the USA, to hold discussions with distributors through which they agreed that Trolls World Tour would be “the exception not the rule”\(^2\). Therefore, it is likely that Troll Worlds Tour won’t have a large impact on the film industry in the near future but it has set a precedent for studios that they can release films successfully on streaming sites.

Not only has lockdown caused a huge shift in entertainment availability, it has shifted the way people consume media. Remaining at home has limited options for entertainment to digital services and with many people either furloughed or not working, combined with children being out of schools there’s been a rise in streaming platform viewership. Viewers who remain isolated from friends and family have utilised media as a way to interact with their loved ones. For example, customers utilising the share screen function on many video call apps to host “Netflix Parties”. Innovation like this has allowed lockdown to facilitate one of the most successful platform launches ever through Disney+, which had over 10 million subscribers on the first day and over 50 million within the first few months\(^3\). This was largely due to people staying at home as a survey of over 80,000 people during lockdown showed, that there has been a 37% increase in the amount of people watching movies alongside a 60% increase in paid streaming services. This has resulted in apps such as Netflix generating a record high $6 billion in revenue during the first quarter of 2020. Streaming apps remain hopeful that this will carry on into the future as 92% of people say that the outbreak will permanently change their leisure habits once lockdown ends. With society being forecast to return to a sense of normality in 2021 and many still expecting a second outbreak, streaming sites will likely see continued gains in revenue and subscriptions. However, the economic impact of social isolation is currently unknown and this could have a huge impact on both the future of streaming sites and cinemas.

Lastly, the unexpected nature of the pandemic means that companies are likely to construct contingency plans in the case of future black swan events. After experiencing months of no revenue cinemas will likely hold some films in reserve and potentially branch out into one-off digital platforms ready to be released in the event of cinemas having to close in the future – such a Facebook or Microsoft shift into video calls apps as a quick alternative to meetings and education. Or turning venues into broadcasting studios so they can hold events or display films just like the national theatre in the UK.
As lockdown conditions begin to ease and cinemas begin to reopen, the film industry will be forced to alter its structure to cater to consumers. Cinemas and studios will aim to generate as much revenue as possible as soon as they can open, thus they may increase the time period between film release and digital VOD release. Filmmakers main focus will be on how they can alter the way they film to account for the effects of the pandemic. In the last 25 years there have been an average of 588 crew members per film. Many of these people are involved in meetings that don’t require face to face interaction, so a lot of this communication will remain limited to video call apps. Visual Effects producer David Conley stressed that “In a post-Covid world, we have to get movies up and running while abiding by the recommended guidelines for safety,” and that production wouldn’t be able to replace “actors or remove the entire live action process, but virtual production allows us to plan to make movies, requiring fewer live action elements.” As studios remain aware of the health and safety risks of having so many people gathered and living in a small area. They will have to provide staff with regular temperature checks, protective equipment and have health standards maintained to incentives them to return to work. These staff may also be under eqipped as lockdown has led to a reduction in manufacturing and the production of component goods. This means that content production needs to be more creative and efficient. Studios must also diversify the films they make as some need to be optimised for costs, some for value, while others need to be optimised for time to fill the gap left by delayed films.

Lockdown has given consumers a better appreciation for leisure activities that they could no longer do with 26% of people surveyed stating that going to the cinema will be a priority event once lockdown ends. It is crucial for cinemas to use this increase in demand to make up for lost revenue. This can be done through two ways; restoring advertising and increasing health and safety. The economic impacts of Covid-19 through reduced output and a reduction in both producer and consumer confidence have led to a large decline in advertising revenue for media. With the remaining advertising taking a vastly different tone from upbeat to sombre. It is important that cinemas help to return advertising to the industry as it impacts heavily on consumer confidence and generates more revenue for films. However, there is uncertainty about how advertising will shift once a sufficient level of consumer spending is restored. As the Great Recession caused advertising to evolve from traditional into a more digital form, which damaged the M&E industry for almost a decade. When distancing restrictions begin to lift venues will still have seating and spacing requirements as well as policies to manage employee and customer health. Cinemas will face a challenge in finding the correct balance between ensuring the safety of workers and consumers while also trying to maximise revenue. For example, Cinemark in their plan for opening have stated that ticket purchasing will be moved online to allow people to choose seats that physically distance them from others, they will “supply hand and seat cleaners for guests, stagger movie times to reduce foot traffic and screen staff before their shifts”. They will also operate at a maximum of 50% capacity. Despite all this care taken to manage the well-being of customers they have made the controversial to not enforce face coverings. This is because with the decrease in film revenue it is essential that cinemas generate revenue through the concession stand, if people were wearing face coverings it would them from purchasing food.

In the long-term, as the gap between cinemas and streaming sites begins to widen, cinemas require innovation to remain competitive. They have the choice of focusing on their internal conditions by changing their structure to improve or find a new competitive advantage, or they must become externally competitive through the development and adoption of new technology. The way cinemas can improve their
internal structure to expand can be analysed through the M-form established by Chandler which incorporates; scale, geographical expansion, vertical integration and diversification\textsuperscript{17}. Previously when threatened by new technology in the form of television, cinemas scaled up production from smaller 1 or 2 screen theatres to modern day ones with a much higher number of screens. Now they are in a position where they must either scale up or scale down to remain efficient and profitable. One option is to significantly increase daily capacity of movies and reduce the number of screenings to only big box offices, this can be done by moving into venues such as stadiums. This allows films to generate more revenue for the ‘tentpoles’ that are increasingly dominating the box office, as stadiums will likely sell out in opening weeks. Current plans are already under way for turning Yankee Stadium into a drive-in event theatre host to movies, live music and comedy\textsuperscript{18}. These stadiums must be accompanied by smaller cinemas that have downsized back to 1 or 2 screens, where the focus is on the experience and showcasing smaller projects. This will help to restore the original appeal of cinema to younger generations while also providing a better platform for independent producers and filmmakers. Cinemas have already saturated the market with venues, with most people living within 1 mile of their local cinema. As a result, there isn’t much room for geographical expansion outside of expanding to new foreign markets. For example, there is a large mainly untapped African market for cinemas with movie industries like Nollywood nearby.

Cinemas can also become more profitable through vertical and horizontal integration. Most trips to the cinema are part of a wider social outing with 49% of 15-24 year olds doing another activity before or after going to the cinema. A majority of these activities are for food, shopping, drinking or meeting and socialising with friends. Cinemas could spec into opening restaurants and bars attached to the cinema brand like retail and shopping centres choose to do. This would allow for these wider endeavours to all be monetised by cinema companies. Secondly, with the rise of digital movies and streaming platforms, most media companies wish to establish a more direct relationship with customers. With the Covid-19 pandemic showing the potential problems if cinemas don’t integrate. A streaming or online release platform would give cinemas two opportunities to make money – in theatres and through digital release afterwards. However, the biggest opportunity for cinemas in integration, are the recent reviews of the Paramount Consent Decrees by the trump administration. The Paramount Consent Decrees prohibit movie studios from owning downstream movie theatres (and vice-versa) while also banning exclusive agreements between the two such as block booking-which is bundling multiple films into one license\textsuperscript{19}. The Assistant Attorney General of the department of justice antitrust division said that the Decrees “have served their purpose and their continued existence may actually harm American consumers by standing in the way of innovative business models for the exhibition of America’s greatest creative films”. With the large changes in the industry alongside technological innovation and the ability of streaming sites to allow consumers to easily access thousands of movies from home, mean that the decrees are no longer necessary and impact upon the market power of theatres. However, this is all dependent upon whether the US government finds these practices anti-competitive and following the recent review there was outrage from smaller cinema brands who would suffer from the decrees being repealed. But, if the decrees were to be removed it would remove the asset specificity of studios over cinemas and would remove their resource dependency theory, although it is likely in most cases that studios would purchase or merge with cinemas rather than vice-versa due to the information and skill barriers increasing the difficulty for entering into the filmmaking industry.
Cinemas have the ability to show far more than just movies, and must move away from the short films of the early 20th century to a wider portfolio. With an average of 14 films released a week in the UK, a reduction in cinema attendance and the tentpole proportion of the annual box office revenue rising to 75%, cinemas need to come up with more innovative ideas to generate revenue. The ‘Event Cinema’ sector which shows live events, immersive theatre and sporting events, has experienced large growth in recent years with large cultural brands including New York’s Met Opera, the UK National Theatre and the Royal Opera House attracting large viewership. By utilising established industries cinemas are presenting themselves to a wider consumer base that can help to distinguish cinemas from their substitutes. The industry is also still growing, as in 2012 the alternative cinema content made £12.5 million at the UK box office, while in September of 2019 alone alternative cinema took over £7 million. With this growth new companies and ideas are being founded such as Secret Cinema which displays large-scale, immersive worlds in which the audience can interact with props, sets and actors ahead of the screening of the movie. Audiences are encouraged (and sometimes required) to dress the part and play assigned roles in line with the movie’s plot. Event cinema is able to appeal to both consumers and the industry as a new form of entertainment is offered to customers that can’t be achieved at home due to the uniqueness of each performance.

Outside of the developing event cinema there are two sectors which have the most promising future for cinemas. Sports is the most watched event across the world and is an industry worth trillions. With increased viewership of events such as the World cup and various playoffs in America, there is definitely a market for cinemas to display games. In August 2017, the Mayweather Vs. McGregor fight grossed £200,000 in the UK despite starting at 4am. With the alternative content manager for view stating “We firmly believe there’s a place on the big screen for boxing. [The Mayweather Vs. McGregor fight] was a big success for us. …Our strategy is to create a fan park atmosphere – ensuring a good attendance and that there’s atmosphere”. Another sector forecast to experience continually rapid growth is eSports. Deloitte’s Digital Media Trends Survey showed that 40% of gamers watch eSports at least once a week and that by 2020 the global eSports market will generate $1.5 billion in annual revenue with an audience of over 600 million fans - providing another opportunity for cinemas to exploit. With a widening divide between ‘Big Cinema’ (the top grossing box office films) and smaller films this ‘Event cinema’ genre, despite its current small size, will have a big role to play in the future as these markets continue to grow. Some cinemas, rather than editing what they display, are changing
how they display it through a new subscription based model as opposed to the current ticketing system\textsuperscript{24}.

Theatre companies offer a monthly membership fee that allows consumers one non-transferrable ticket per day. This guarantees both attendance numbers and viewershership while also giving cinemas the opportunity to compete with streaming platforms. Which is crucial when cinema admissions are at their lowest point in the last 25 years. A subscription model helps to target a younger audience because millennials grew up on subscriptions and have been trained by Netflix, Spotify, Amazon and others to operate in this way. This is why roughly 75\% of MoviePass (a subscription company) users are between 18 and 34 years old. The future goal for companies like MoviePass is to amass enough subscribers that they can begin to establish bulk ticket pricing deals with theatres, charge studios for advertising to members and potentially receiving a portion of concession revenue\textsuperscript{25}.

In the last two years there has been rises in investment into the AR/VR industry with the technology expected to expand to over 3 billion devices by the end of 2020\textsuperscript{26}. With increasing development into augmented and virtual reality apps by companies such as Oculus, media and entertainment companies are now finding ways to integrate this technology into their services. This can revolutionise film making as visual effects artists can create a digital landscape in one country while the director and production designer in another, using a VR helmet, can plan the film. Studios should also gain more experience in using animation and CGI which will improve immersion and allow for remote production in the case of further complications from Covid-19. VR and AR will provide a new dimension and attraction for cinemas will need to wait of wider availability of these devices. This is because even if they have VR movies, they still require households to have TVs that support this technology which only higher income households can afford. Yet with all these technical advancements it’s crucial that they move quickly as Technological change only benefits the first few firms which capitalise in the market due to first mover advantage and this crowds out subsequent firms from entering.

Cinemas have a lot of scope for investment that can turn around their current downward trend. As streaming sites continue to grow, big studios and the streaming platforms fight to bring all major movies under one umbrella. Cinemas can utilise this competition to their advantage as they are currently able to show all films regardless of studio. However, even if cinemas fail to adapt to the current market, it has proved it’s resilient in the industry grossing over $11 billion annually with $1.3 billion tickets purchased. This is ten times more than the number of tickets purchased to attend sports games combined and this is only just within the US. Cinemas have faced multiple battles over the last 100 years; it was said TV will kill cinemas, then it was colour TV, then cable, then Video rentals, then Blu Ray, then VOD, and now its streaming sites. It’s clear the Covid-19 pandemic has sped up the timeframe in which cinemas must act to keep their dominance even though it would take a large shift in consumer preferences for cinemas to go out of business.
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Mayowa Ayanbadejo is from Grays and went to Eton College. He chose E&M because he’s always been fascinated by the interaction of economic agents and how the smallest transactions have ripple impacts on the economy as a whole. He is also intrigued by the idea of human irrationality and its effects on many economic theories and how human behaviour can be or is being influenced. After graduating, he has yet to decide whether he wishes to pursue a career in investment banking or study for a master’s degree.
How has the organisational management response to COVID-19 differed between British and foreign-based airlines, how has it been influenced by internal and external factors, and how can they successfully emerge from this crisis?

Jacques Maurice

The coronavirus pandemic has caused major disruption to the global economy, impacting all sectors. Arguably, one of the hardest hit is the international airline industry. Closing borders, lockdown restrictions, and quarantine rules for international travel have been common responses to the crisis, all of which create difficulties for international travel. The external shock has resulted in a complicated situation for airlines to navigate. According to the Pew Research Centre, as of April 1st, 2020, 91% of the world population lived within a country that restricted travel. It is also estimated that 39% lived in countries where borders were completely closed to non-citizens or non-residents. For international airlines, this has resulted in a collapse in demand, the extent to which has not been seen in peacetime, which has forced airlines to drastically reduce services. The Wall Street Journal has reported 90% of air traffic has disappeared, and 99% of flights still being serviced carry under 20% of the plane capacity. The resulting loss of revenue is the fundamental issue. Airlines operators still have large expenditure despite job retention schemes, and reduced operations. A clear example of this is the $50million daily cash burn experienced at United Airlines. The evidence presented here shows the need for airline managers to respond. Done effectively, an airline can emerge from the crisis a much stronger force within the international market, compared to before the pandemic.

However, responses are not solely determined by a board of directors, or senior management. Governments can intervene within the market, giving airlines a head start over their foreign competitors. It is not uncommon for government responses to a crisis to differ, but it is less common for government support to be offered to organisations competing predominantly in an international market. For most markets, the main area of competition is local (in the case of SME’s) or national (in the case of large enterprises), while a small proportion of their competition is international. However, the majority of airlines serve more international flights than domestic routes. In 2018, 88% of passengers uplifted by British airlines were on an international flight. So whilst the crisis is hitting all airlines, the disparity in the support they are receiving is forming an unfair market in which airlines must compete. A further complication for airlines based in smaller countries is the size of the domestic market. As lockdowns are eased, domestic flights will restart faster than international flights as international borders may remain closed to non-residents, or quarantine restrictions may discourage international travel. Arguably, this gives a competitive edge to those operating within a large domestic market, as their large-scale operations can begin again sooner, allowing revenue to cover overheads that are currently being financed by cash reserves or equity financing. The best example of this is in China, where the pandemic began. They were one of the first
countries to ease lockdown as they passed the peak of the virus. The airlines within China have access to the second largest domestic economy in the world, and therefore have the opportunity to become a larger player in the international market.

In order to combat this disparity in government support and domestic market size, airlines have reacted differently. According to the three decision-making approaches detailed by Mitzberg & Westley (2001)\(^5\), the nature of the current crisis has triggered ‘doing first’ decisions, rather than ‘seeing first’ or ‘thinking first’. This has played a role in the range of responses seen, as airlines have an absence of data, an unpredictable future, and a need to make decisions quickly. For the most part responses can be grouped by the country in which the airline is based, as this is how the government’s support is grouped. However, in other cases, government responses are similar across a continent, for example South America and Africa. In these cases, there is a scope to group responses by continent.

The most obvious response to a collapse in demand is a reduction in the size of the workforce. Changing the organisation using this method is an example of type E change strategy (Beer & Nohria, 2000)\(^6\). “Theory E change strategies usually involve heavy use of economic incentives, drastic layoffs, downsizing, and restructuring.” All of these elements of theory E have been adopted by airlines during the current crisis. The most widely reported response of airlines across the globe is temporary downsizing, and redundancies. American Airlines, Delta Airlines, Ryanair, and British Airways have all stated, or at least hinted at a reduction in the size of their workforce once government interventions are lifted. While redundancies are a common reaction for most commercial airlines, the scale of redundancies varies widely. British Airways, easyJet, and Virgin Atlantic (all British based airlines) have announced redundancies of up to 30%. This exceeds the majority of other major airlines, with Ryanair only expected to cut 15% of jobs, LATAM cutting 3% of its workers, and all-American airline companies holding off until September. The differences can be attributed to a combination of their core competencies, their domestic market, and the government support that has been received. The British government has refused to give airlines extra support (on top of the job retention scheme) until they tap their shareholders for funds. This has hamstrung British airlines as investors are typically unwilling to separate with their money for an industry that is struggling as a whole.

The decision by US airlines to wait until September for redundancies is a result of the conditional support received by the government. However, by then the scale of redundancies will likely be less than experienced in the UK. By September lockdowns will have been eased and demand for air travel will hopefully have picked up to some extent. However, the most important factor for US airlines is the size of the domestic market that they have access to. International travel will return slower than domestic flights, due to quarantine introductions and customer uncertainty. Therefore, having access to this large market gives an advantage in the international market, leading to a need for fewer redundancies. The difference in redundancy levels at LATAM can’t be attributed to government interventions, or domestic markets to the same extent as the USA, however they still have a significantly small proportion of their work force being made redundant. A potential explanation for this is related to the corporate culture, which is influenced and derived from national cultures of subsidiaries within the group. Hofstede (1980)\(^7\) identified five factors that differ between national cultures, one of which was the different levels of individualism versus collectivism. Latin America (where LATAM has all of its subsidiaries) typically scores particularly highly in collectivism. This
explains the decision to cut the wages of all staff in half earlier into the crisis. They have opted to reduce wage expenditure by impacting everyone in the group in the same way, rather than opting to let go of a large proportion of staff. Further to this, the chief executive is reported to be taking a 100% pay cut, in a further effort to reduce cash burn, and supporting the argument that LATAM’s low redundancy numbers are a result of its corporate culture of collectivism, which likely has been impacted by collectivism’s role in the societal culture of Latin America. Regardless of the extent to which redundancies have been introduced, they are all arguably examples of a threat rigidity response (Staw et al, 1981) when implemented on its own, such as at Ryanair. While it is necessary to reduce the work force in a period of slumped demand, not all airlines are looking at changing processes, or developing core competencies. They are simply hoping for the market to return to the state before the crisis. However, this is not a certainty. The crisis has also highlighted a lack of resilience to a circumstance of this nature. While this is an unprecedented situation, firms can look to develop resilience through successful corporate strategy and developing core competencies, which could give them better chances of survival during a period of reduced passenger demand.

One example of airlines’ increasing resilience during reduced passenger numbers is the introduction of new cargo-only routes and converting passenger jets to ‘preiers’ as Lufthansa has coined. This has been a common response for many airlines worldwide, regardless of location, including major US airlines, LATAM, BA, and Lufthansa, to name a few. Victor & Boynton (1998) argued corporate change is sped up and encouraged when the threat of extinction looms (contrasting the threat rigidity argument proposed by Staw et al, 1981). This can be seen as that argument in action. COVID-19 is threatening to bring many airlines down, with bankruptcy protection already being filed by numerous companies. Therefore, the change to incorporate greater cargo freight is a response to the threat of extinction. Many airlines already had cargo divisions, but using passenger jets, and routes that are typically passenger only is an example of Peteraf’s (1993) core competencies analysis, to extend further into this sector of air travel. LATAM recently launched their first ever cargo only flight between America and Europe, and Swiss Air has taken this opportunity to become a major player in the freighter industry. They have used their extensive passenger network, between key destinations, and their own geographical location to increase their prominence within the air cargo market. While British Airways and Virgin Atlantic have managed to use their core competencies in this way to develop existing cargo services, not many other British firms have had the same opportunity.

Due to the small nature of the domestic market in the United Kingdom, there is limited space for airlines competing on provision in a similar way to BA, instead they must compete on price, as low-cost carriers. This has forced their operations to fly from smaller airports, that have less competition for landing slots, causing them to be cheaper to operate from. The result of choosing these airports is the lack of opportunity for cargo services, as the smaller airports of choice do not have the size, and demand from airlines, to introduce the infrastructure that would allow carriers to land cargo there. This has prevented low-cost carriers, such as easyJet, turning their idle planes to cargo freighter services. The question also arises, if they had the choice to fly to airports that facilitated cargo travel, would they choose them? The answer is not obvious, despite the clear advantages in the current crisis. Porter (1980) details the three generic strategies that can be implemented by a firm looking to achieve a competitive advantage. They are cost leadership, having the lowest costs allowing you to undercut competitors, differentiation, offering the consumer something different which they are willing to pay
more for, and focus, serving a particular target very well. Obviously, easyJet, Jet2, and other low-cost carriers have opted for cost leadership over differentiation. If they had opted not to operate to regional airports, rather to operate to key destinations, costs would be higher, forcing them to lose any cost leadership based advantages they had developed or were seeking to gain.

Furthermore, part of the reason they can operate as cost leaders is the lack of cargo they carry. Cargo is not only heavy, and thus burns more fuel, but also time consuming. When arriving at an airport, cargo takes significantly longer than passengers to unload, which would force low-cost airlines to leave larger gaps between flights. This further increases costs to the carrier, as part of their low costs can be attributed to the time planes spend in the air transporting customers, rather than on the ground being unloaded. Therefore, the lack of resilience to this crisis that is evident at low-cost carriers, is a result of the competitive strategy that made them so successful in the first place. This means that these airlines would not necessarily want to develop cargo freight services if they had the opportunity to, as this will hinder their overall strategy of cost leadership, and, as Hannan and Freeman (1977) argued, ‘generalism’ is costly. A low-cost airline must specialise in being low cost to survive in the industry, rather than trying to incorporate too many different approaches, which will result in none being executed effectively. Furthermore, using the resource dependency theory (Pfeffer & Salancik, 1978) it can be argued that established low cost carriers cannot afford to change and develop cargo opportunities. The resources they need lie with their existing customer base, who are the ones who pay for the cheap flights. Changing may restrict their ability to serve these people who have the resources that they can most easily access. This further consolidates the argument that low-cost carriers are unlikely to develop cargo opportunities while emerging from this crisis.

A much less common response to the crisis has been taken by two British airlines, Virgin Atlantic, and British Airways. Strategic choices include what services to offer (Rumelt, Schendel, and Teece, 1994), and permanently changing the services on offer has been a strategic choice made by these two British airlines. Virgin Atlantic has confirmed they will no longer continue operations from Gatwick Airport, while British Airways have threatened to stop their operations from the same location. Similar to the development of cargo freight opportunities, this is an example of change being driven with the threat of extinction (Victor & Boynton, 1998). This response has been criticised by Unite, one of the unions representing thousands of British Airways’ workers, who argued they had a hidden agenda behind this scale of downsizing. A crisis such as a pandemic can open opportunities for firms to make large scale corporate change, while pointing to the circumstances as the driving force. If this is the case, it can be argued that stopping operations from Gatwick Airport is something the airline wanted to do previously but didn’t due to the potential damage to their brand. If brands are attached to the corporation as Holt (2003) argues, it becomes abundantly clear why the airline might wait until the crisis to make this strategic move. Regardless whether British Airways did have a hidden agenda when threatening to leave Gatwick, it is a reasonable response to shrink operations in a period of reduced demand. However, stopping operations from an airport has not taken place in America. This is not a strategic decision, rather the effect of major airlines taking on state aid. One of the conditions attached to the support was that airlines would not stop servicing any location they previously flew to. This has restricted their choice to drop airports and is also proof that the government can play a major role in restricting, or aiding airlines in their response to the coronavirus pandemic.
In a similar way, Lufthansa’s choice regarding airports has been impacted by external forces, rather than internal decision making. However, the opposite result has been achieved by forcing the airline to drop lucrative slots at two key German airports. The decision was made by the European Commission, who warned that disparity in state aid may distort the market. The move has already received criticism from Lufthansa’s rivals, who entered the crisis in a stronger position, and feel this state aid for the group will cause excessive damage to the rivals who are receiving considerably less, or no industry specific government support. The announcement of this support for Lufthansa may causes changes to its rivals’ competitive strategy, as the essence of strategy formulation is coping with competition (Porter, 1979)\(^7\), and this has drastically changed the market which these airlines are competing in. Porter (1979)\(^7\) also detailed five forces of competition, of which a firm must be able to cope with to thrive in an industry. The current crisis may have highlighted a flaw, or omission from his model. The five forces model describes relatively well the interactions in a market that influence competition, when that market is of a domestic nature. The airline sector, however, is in no way domestic. Airlines compete internationally, against airlines with different restrictions imposed by their respective domestic governments. In this crisis, it is not restrictions that are of interest, it is the government support given to local airlines, who proceed to compete against different levels of state aid. The five forces are about how a firm interacts with the industry; however, one could argue there is a sixth force in a market which is predominantly international competition, and that is the government. The state aid received by Lufthansa will impact the competition it faces from its rivals and will impact the strategy they are forced to undertake. Therefore, I would argue the current crisis has shown a flaw in Porter’s five forces model (1979)\(^7\), when applied to a market that faces international competition to a greater extent than domestic competition.

The varying levels of state aid not only impacts the competitive strategy of airlines receiving less support, but also impacts the extent to which they need to raise cash reserves, to have enough liquidity to get to the other end of the crisis. In Britain, no direct aid for the aviation sector has been announced, leaving firms to rely on cash reserves to see out the crisis (except for wage expenditure, which is predominantly covered under the furlough scheme). For British Airways and easyjet, this has not caused too many issues, despite the uneven market they will be competing in after the crisis. They had relatively strong balance sheets while approaching the introductions of lockdowns around the world, which have largely left them not needing to tap into private equity markets. Contrary to this, Virgin Group has had to sell stakes in various venture to raise the capital required to keep Virgin Atlantic running. The diverse range of companies within Virgin Group’s corporate portfolio have allowed the survival of one of its subsidiaries, at the expense of another. The group have been forced to do this as Rishi Sunak, UK Chancellor of the Exchequer, refused to give direct aid to any industry before squeezing money out of their investors. The lack of support is likely to have a long term, depressive impact on the British aviation sector, setting them back relative to international competitors many of whom have been granted access to the state’s deep pockets.

Within Europe, where the majority of British low-cost carriers compete, Lufthansa has been granted €9 billion, Air France-KLM has received €7 billion, Iberia and Vueling accepting €1 billion from the Spanish government, and finally Alitalia has been renationalised (this was planned before the pandemic hit, but was rapidly sped up in order to keep the airline alive). All these have given the competitors of British airline a boost, and an opportunity to emerge from the crisis in a stronger position than when...
they entered. While it is hard to dispute these support measures will have net benefits, they are not without conditional attachments. This can influence the way in which they operate while emerging from the crisis, again showing how Porter’s (1979) five forces omit the implications government action can have on the nature of competition.

Moving forward, airlines will have to change operations for a post-crisis market. Demand will slowly edge back to 2019 levels, with industry CEO’s estimating this to be late 2021 at the earliest. Furthermore, the strings attached to government bailouts can restrict airlines when emerging from the crisis. One example can be derived from the Lufthansa bailout, where the German government now has a 20% stake in the company (one of the largest stakeholders), as well as two seats on the supervisory board. This can lead to coercive isomorphism (Dimaggio & Powell, 1983)\(^\text{18}\), where there is formal or informal pressure on firms to behave in a desired way. In the case of Lufthansa, the pressures can become formal from the government. Many have opposed state aid going to airlines, pushing for a ‘greener’ economic recovery, so it is likely the government will feel this pressure and subsequently aim to reduce Lufthansa’s environmental impact. The airline may even feel informal pressure from the public to reduce emissions before the government push for it from the supervisory board. Schleifer & Vishny (1997)\(^\text{19}\) state corporate governance assures shareholders that managers will strive to achieve outcomes that are in the shareholders’ interests.

The government being the representative of the German public, and also sitting on the supervisory board ensures that management are taking decisions in the interest of the German public, again making pressure to Lufthansa formal. While this is speculative, and not yet confirmed whether Lufthansa will act to significantly reduce emissions, the coercive isomorphism demonstrated at Air France is not speculative. The conditions attached to their state aid was explicitly, cut carbon emissions. The carrier needs to cut domestic carbon dioxide emissions in half by 2024 and cut all carbon dioxide emissions in half by 2030, as a condition of the support they have been granted by the French government\(^\text{20}\). The question can be raised about whether this is indirectly a result of the French public, pushing the government for a ‘greener’ recovery, but the pressure exerted on Air France is formal, thus coercive isomorphism is being displayed in this situation. Mimetic isomorphism (Dimaggio & Powell, 1983)\(^\text{18}\) may also become apparent in the airline sector as they begin operations again. This is the idea that one firm may imitate the organisation and management of another, particularly evident in times of uncertainty, such as this. If one firm has a stronger balance sheet, mimetic isomorphism can be a temporary strategy to outperform competitors while navigating an uncertain market, as the balance sheet strength can help to weather the storm until a notable level of consistency and security has been established within the market. Therefore, during the start of returning operations, there may be a number of cases of mimetic isomorphism until there is stability within the market.

One area where mimetic isomorphism may not be desirable is in the African airline market. Imitating one another may not be the ideal solution when the opportunity for cooperation has been presented to them in the face of the pandemic. The number of African airlines is too high for the level of demand they face, which has already resulted in many filing for bankruptcy. But this has highlighted how airlines in the region can cooperate to become more prominent players in the international aviation sector. In a podcast\(^\text{21}\) including CEO’s from some of Africa’s largest airlines, including South African Airlink, Rwanda Air, and Kenya Airways, there was discussion of the benefits of
cooperation of some of Africa’s larger airlines. These included the economies of scale that can be achieved by sharing capacity and reducing collective overheads. This was seen by many of the CEO’s as an opportunity to ‘leapfrog’ some of the most prominent areas for aviation, allowing the firms to become global competitors. Using Porter’s (1979)\textsuperscript{17} five forces analysis, this cooperation can help reduce the rivalry force of competition, allowing for greater profits, and easier provision to the market. The overcrowded nature of the African aviation sector has also been corrected during the pandemic. Many airlines were state owned, which kept the number of firms in the market unnaturally high (Hersov, 2020)\textsuperscript{22}, but many African governments have been unable support the airlines throughout this crisis. This has opened up the opportunities for private investment to come in, which will inevitably reduce the number of firms in the market, allowing for greater profitability of the airline sector in Africa, with economies of scale, and more efficient operations, as previously governments running airlines were inefficient (Hersov, 2020)\textsuperscript{22}. Further to this, it will also facilitate the cooperating that can help to make African aviation a much more powerful force in the international market. Therefore, while devastating in the short run for African airlines, this pandemic may be an opportunity for greater long-term efficiency and increasing market power, especially for those airlines that become air travel hubs for the rest of the continent. This opportunity has opened up for Ethiopian air (Hersov, 2020)\textsuperscript{22}, as they are state owned but privately managed.

These cooperation advantages are not available to most airlines, in which case they cannot become part of the competitive strategy moving forward. However, a decision for all airlines is the choice between being a first mover, or fast follower. While a first follower gets access to the whole market, they can potentially make detrimental mistakes. In contrast, a fast follower can learn from the mistakes of first movers and analyse the market for greater understanding. While this analysis is typically used for new technological industries, it is applicable to this situation, where the market airlines are facing is different to the one they faced before the pandemic hit. Whichever strategy is chosen, it should be an emergent strategy (Mintzberg, 1990)\textsuperscript{23}, meaning it is flexible and opportunistic. The market will be continuously changing, and new opportunities will arise. Here an emergent strategy will thrive over a planned strategy which will be unable to incorporate the new opportunities that are presented. An emergent strategy will also outperform a planned strategy in the face of disruptions that can realistically arise, such as a second wave which could once again ground the airline industry.

To conclude, responses by commercial airlines to this crisis have been largely similar. The differences are largely in the scale in which they are happening or planned to happen. For example, the almost all airlines have looked to raise capital, or make redundancies, but the differenced between British-based airlines and foreign-based airlines is the scale of the measures put in place. The differences can be explained to some extent by the local governments and their level of support, the previous strategy employed, and the internal capabilities of the firm. With regards to emerging from this crisis, it will be a slow process for demand to properly recover. During this period of recovery opportunities will open up, be closed off, and exploited to their full extent. Variance in opportunities will be a result of the restrictions implemented by local governments, consumer attitudes, geographical location, and the potential second wave of the pandemic that could hit.
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Many thanks to Robert Hersov for his expertise and insights into the aviation industry.

Jacques Maurice is from Harrogate and he attended Harrogate Grammar School. He chose E&M as he feels that it allows for analysis of the world around us using mathematical models while incorporating the study of policy choice and strategic business decisions that affect daily life. After graduation, he would like to work in a consultancy firm, or start a career in the finance sector.
How have the drivers and anticipated paths of technology innovation and adoption changed due to the problems induced by the COVID-19 pandemic?

Daniel Jones

As the world responds to COVID-19, technology is at the forefront of the strategies to cope with the problems arising from the disease. Technology that was in the fermenting stage of its progression to mainstream adoption has had its anticipated path of development sped up, as consumer’s needs are clearer and their traditional biases towards technology have become more malleable (Tushman and Anderson, 1986). The typical drivers of innovation and adoption have also changed, as governments play a greater role in advancing product life cycles (Geroski, 2003). These changes appear most clear in certain technologies whose prior applications weren’t as obviously useful or appealing to consumers, but now have clear and undeniable benefits. Some of these technologies, such as AR and VR, Internet of Things technology and drones, will be discussed in this essay. Furthermore, COVID-19 also appears to be accelerating certain technologies in the other direction, leading to their advanced demise. Online payment is one of the technologies which has experienced greater adoption following the development of COVID-19 (Peachey, 2020). People are less inclined to touch cash due to fears that it may be a means through which the disease is disseminated. Consequently, people are turning to contactless measures such as online banking transfers to avoid contact. These measures are particularly being adopted amongst the elderly population whose stance towards online banking was previously more cautious. Thus, it seems plausible that following COVID-19 cash plays far less of a role in society as online transfers rise. This sets the tone for many of the other adjustments that are taking place as a result of COVID-19, as people’s face to face interaction is replaced with online substitutes.

VR and AR technologies are seeing a rise in the number of applications that could stem from their services, and are being implemented into retailers’ sales methodologies (Birch, 2020). However, whilst business adoption of VR and AR seems to be rising, user adoption has not drastically improved (Birch, 2020). This is arguably due to increased savings rate amongst households due to the recession induced by the novel coronavirus. Internet of Things technology has experienced a more advanced path of adoption, which has been particularly evident in the healthcare industry (Rehak, 2020). Due to concerns over nurse and doctor safety, contact with patients needs to be reduced to a minimum. In Wuhan, IoT technology has been implemented to help resolve this problem, with wristbands being given to patients which monitor their vital signs, enabling doctors and nurses to watch over patients from a computer screen, and via 5G technology, robots have been implemented to administer treatments (Watson and Buitla, 2020). In the US connected thermometers are being used for a similar purpose, and their prevalence has rapidly risen since the onset of the COVID-19 pandemic (Choudhary, 2020).
Similarly, the advantages of drones in the current climate are clear. Through replacing delivery drivers contact is minimised when deliveries are made, but governments are also seeing a variety of uses for drones, from using them to help break up large crowds, to monitoring people’s temperatures before they enter buildings, to using agricultural drones to spray disinfectant (Choudhary, 2020)\(^9\). However, the variations between advancements in these technologies is dramatic from country to country. At the moment, the main drivers of advancement in the uses of these technologies are governments rather than consumer users. This means in countries where the government is more centralised, certain technologies have advanced quicker (Baron, 1995)\(^10\). Furthermore, as shown by Kahneman, saliency biases are likely to play a significant role in the post-pandemic world, and these biases will prevent the change in life cycles for the technologies discussed from reverting back to their original state (Kahneman, 2013)\(^11\).

**Cash**

The demise of cash seems to be imminent thanks to the COVID-19 pandemic. The coronavirus has placed contactless and online payment measures at the forefront of the way that payment is made as people seek to avoid contact with unclean or shared surfaced wherever possible. Cash, whilst not being one of the worst conduits for coronavirus, does have the potential to carry the disease, and so its use has dwindled drastically. Cash withdrawals from ATMs have fallen in some cases by more than 50% across Europe, and cash usage in the UK halved in just a few days following the introduction of lockdown (Proskauer, 2020)\(^12\). Consumers have thus begun adopting online payment measures where they previously wouldn’t have, and with greater frequency. This change has even been facilitated by official agencies, with the the Bank for International Settlements changing their rules to allow contactless card payment limits to rise from £30 to £45 in the UK which has been emulated by other European jurisdictions (Proskauer, 2020)\(^13\). The proportion of payments that are made in cash has consequently fallen, suggesting an uptake in different forms of payment.

The reduced use of cash would not have transpired at the same rate without the COVID-19 pandemic. Online and other non-cash payments were still rising before the pandemic, but a significant proportion of consumers and businesses, particularly SMEs were still operating on cash. This was due to the fact that many older businesses and people struggled to adapt to new technologies, often simply due to their unwillingness to change habits or processes which they had grown comfortable to and familiar with over the course of many years. Online and non-cash payments often did not serve any significant improvement to their lives or processes relative to the stress that they themselves would have to put themselves under to implement them. However, now, due to the presence of alternative forms of payment, the problems created by cash payments have not been needed to be navigated by the government, especially in light of the other problems that they are facing. Therefore, SMEs and elderly people are being forced to adapt to this change, as the solution to the cash problem is already there, and so few contingencies are in place to enable people to continue to use cash safely. Consequently, before COVID-19, the end of cash would have taken place more in line with generational cycles, for, as elderly people who avoided non cash payments passed away, and SMEs that had not updated their processes inevitably were replaced by more efficient businesses, cash payments would have subsided with them. However, elderly people and SMEs have been forced to change their habits, and whilst the change is frictious and still ongoing, by forcing a change of habits, COVID-19 has advanced the generational cycle which would have ended cash.
AR and VR

Augmented reality and virtual reality are two relatively new forms of technology whose potential applications are being realised as a result of the COVID-19 pandemic. Virtual reality is a technology in which the user can have a ‘first person experience in an online world’ (Birch, 2020)\textsuperscript{14}. Through vehicles such as VR glasses, the user can interact with the online world as if it were the real world, and consequently have a more immersive experience than one could have through interacting with a computer screen. Augmented reality is a progression to VR which combines the real and virtual worlds by placing a virtual reality on top of the real world so that online features are influenced by what is transpiring in the real world (Birch, 2020)\textsuperscript{15}. As people have had restricted access to the usual physical experiences they are able to experience when not in lockdown, VR and AR have become an interesting way that the desire for certain experiences can be replaced in lockdown.

One company that has been exploring the possibilities these technologies present to them is LifeStyles IN 360 (Birch, 2020)\textsuperscript{16}. They have seen that, through VR, shop layouts can be emulated, with virtual assistants available to link to a customer’s profile to create a personalised environment which uses information about previous purchases to recommend new goods (Birch, 2020)\textsuperscript{17}. It could enable friends to shop together, even during lockdown, and help retailers recover some of the sales lost due to their prior inability to offer any interactive service during lockdown. Similarly, Asics have debuted three new shoe lines in virtual reality (Birch, 2020)\textsuperscript{18}. Other products are being offered in AR to try and navigate the loss of interactive services, with burgeoning technology being created to help with interior design. This may subsequently become a new way to advertise for companies as it helps people see themselves in the product before they by it, affirming the validity of a purchase. This was shown to be true in a survey carried out which concluded that 62% of people would be more likely to buy a product that they had seen in AR than one that they had not (Birch, 2020)\textsuperscript{19}. Consequently, as a result of the problems created by COVID-19, these new technologies have found new uses and purposes which are being advanced by companies willing to take a risk on them due to users changing needs.

However, whilst companies are exploring more possibilities for AR and VR due to the potential that they hold for consumers, consumers themselves are not using AR and VR more than they were before the onset of the pandemic; in fact the numbers of new AR and VR devices are falling. This is likely due to the higher savings rates that have arisen due to the recession caused by the problems created by COVID-19 (Birch, 2020)\textsuperscript{20}. The savings ratio was up 1.2 points between Q3 and Q4 of 2019 before the pandemic had fully set in, suggesting that, now the pandemic’s impacts are being more fully realised, savings rates will have increased even more (Office for National Statistics 2020)\textsuperscript{21}. Therefore, whilst AR and VR offer clear solutions to some of the problems induced by the coronavirus, consumers do not yet need them as users wants have not stayed the same but have adapted to some extent with the disease. Thus, if users are not forced into adopting this change, it is likely that the period of ferment that AR and VR will undergo may not be advanced, as while businesses are exploring the possibilities offered by these technologies at an advanced rate, users are not. Furthermore, it is probable that AR and VR technologies will not get any cheaper. Significant problems have arisen in supply chains thanks to the danger of international interaction. Therefore sourcing the devices consumers need to adopt AR and VR will become increasingly
expensive, and so, given that savings rates are also rising, AR and VR may not be adopted at an advanced rate by users.

**Drones**

Drones are a technology that have actually been in commercial use for a long time, having been first used for non-military purposes in 2006, the same year that the Federal Aviation Administration granted their first license for such use (Taylor, 2020)\(^\text{22}\). However, they have not proliferated in peoples' lives in the way that may anticipated them to. In 2015 Goldman Sachs predicted that the opportunity for drones for the next five years was going to be at $100 billion, but in that time only $19.072 billion has been exploited (Goldman Sachs Research, 2020)\(^\text{23}\). They were predicted to quickly develop into the main means of delivery to homes and businesses as well as for a variety of other commercial uses, and yet their existence in the public domain, albeit with some exceptions, has predominantly been rocked with scandal, with the Gatwick incident in which multiple drone sightings around Gatwick resulted in hundreds of cancelled flights in 2018, affirming a general public consensus that drones are a technology too dangerous and unregulated to be trusted to become a dominant industry (Guariglia, 2020)\(^\text{24}\). The problems arising because of COVID-19, however, has arguably changed that. The concern over face to face contact during deliveries, as well as human contact with goods in the packing process has arguably begun to change authorities’ mindset towards the need for drones and the role that they should play in the public domain.

Drones can help fully mechanise the delivery process. By having drones pick up and transport goods from warehouses, the need for human contact is eliminated. It would reduce the risk of human contact as the drones, once disinfected following their launch or maintenance, have no need to come into contact with people, as deliveries can be dropped off at consumers’ doors, and due to the lack of traffic, there will be less risk for late arrivals of goods, and so no need for goods to be picked up at the post office or from neighbours if the consumer is not present to receive the good. This advantage to drones may begin to outweigh the fears over the unknown criminal potential surrounding drones due to the more imminent fear of COVID-19, and as such they are starting to become more prevalent in day to day lives. This is evident in the fact that Wing, a drone delivery service, in April, became the first drone carrier to be formally certified as an air carrier by the FAA (Taylor, 2020)\(^\text{25}\). Wing is the drone equivalent of Deliveroo, it enables people to order goods from local stores and have them delivered to them by drone. This is a significant step forwars for the advancement of the adoption of drones by users, as the FAA's approval of Wing gives drones a legitimacy that they didn’t previously have, and arguably starts the process of moving them from a niche, interesting idea, to something that has been approved to work in the mainstream.

What is more, a variety of new ideas for the use of drones have arisen out of the problems caused by COVID-19. These ideas are being driven by businesses and authorities who are the groups tasked with resolving the pandemic. This can drive user adoption as, particularly from authorities, by forcing interaction with this technology out of necessity, users will become accustomed to them playing a regular role in their lives and begin to accept it as the new norm, and consequently may welcome it into other parts of their lives. This was evident following 9/11 which required the government to have a greater insight into the private life of their citizens. This first manifested itself in more thorough security checks at airports but ultimately led to the acceptance of further openings up of citizens’ privacy through acts such as the Patriot act which enables law enforcement to obtain a warrant for any terror related incident, which allowed law
enforcement far greater access to citizens’ information (Watson and Builta, 2020)\textsuperscript{26}. One such idea, which by the very fact that it was mooted suggests a progression in the attitude towards drones, was the idea that drones could be used to enforce the law instead of police officers. The idea was abandoned due to concerns over public reaction, but the fact that drones are in the minds of policymakers for such crucial roles suggests a change in attitude. The drones could have been used for law enforcement measures through a variety of features of the drones, including the ability to communicate through loudspeakers.

Drones have actually been in use within businesses regularly within certain industries, which have yielded further possibilities for the technology. Drones are often used in agriculture due to their spraying capabilities (Taylor, 2020)\textsuperscript{27}. They can administer pesticides and other sprays at a rate 50 times faster than traditional measures, and consequently there have been many drones designed for such a purpose (Taylor, 2020)\textsuperscript{28}. These are now being used to administer disinfectant spray to locations such as warehouses and other areas where humans are in regular contact, helping circumnavigate the problem. Again, this further emphasises the idea that drones are being treated as a mainstream and viable solution to problems, and are not balked at because of the potential dangers involved with the technology. This would not have come about for a long time without COVID-19, as without COVID-19 there would be no real impetus for technology which avoids face to face contact. The technology would have continued to ferment until certain privacy and security checks were designed to make it acceptable to users, something that may have taken many years. Users arguably always prize security over efficiency, and so the efficiency in and of itself of drones would not have been adequate to encourage adoption of such a technology accept by a few of the developing users. However, COVID-19 enables drones to be the resolution to the pre-eminent security problem that users are facing at the moment, thus giving the drive to adopt drones as a necessity to combat the disease.

**Internet of Things**

Unlike drones, the Internet of Things is a far more novel and less mature group of technology. The ‘Internet of Things’ technologies are the devices which embeds the internet into common objects which don’t require human-to-human or human-to-computer interaction (Wikipedia, 2020)\textsuperscript{29}. The Internet of Things has been brought to the forefront by the problems arising from COVID-19 as, like the technologies previously highlighted, it strips out the need for human contact and thus, when used, reduces the possibility for the spread of COVID-19.

One of the most promising areas for IoT technology is in healthcare. This was an area that was previously very resistant to IoT technologies due to a variety of concerns ranging from the privacy of patients, to the over-reliance on a technology that could experience widescale failure if there are certain shocks to power supply or security (Choudhary, 2020)\textsuperscript{30}. However, COVID-19 has put nurses and doctors at risk, and so the need for technology is undeniable, and IoT technology has begun to be implemented in hospitals at a far greater rate. A variety are being implemented across the globe but the most ubiquitous seems to be the introduction of smart thermometers. Kinsa smart thermometers are at the forefront of this technology (Choudhary, 2020)\textsuperscript{31}. They upload the information acquired from the thermometer to computer interfaces to enable doctors to collect data on aggregate, and means that they do not have to take the temperature of patients themselves (Choudhary, 2020)\textsuperscript{32}.
Similarly, connected wearables are increasing in prevalence. In Wuhan, a field hospital has been set up which is operated using IoT technology (Watson and Builta, 2020)\textsuperscript{13}. Patients and nurses and doctors all wear ‘bracelets which are connected with an AI platform from CloudMinds, which runs a cloud-based system for intelligent robots, which provides constant monitoring of vital scenes such as temperature, heart rate and blood oxygen levels’ (Watson and Builta, 2020)\textsuperscript{34}. This a significantly advanced step in the adoption of IoT technology, as there can be little doubt that without the need to restrict human contact, the investment needed to create a field hospital which operates in this way would not be deemed to be worthwhile. Thus, it seems clear that COVID-19 related problems have greatly advanced the adoption of IoT technology, and will be hard to undo given the investment that has now been put into creating them.

The adoption path of Internet of Things technology will continue to grow quickly whilst it solves the problems posed by COVID-19. It is projected that over 200 million shipments of connected thermometers in 2020 and when 5G technology is fully implemented the potential of IoT technology will only expand (Watson and Builta, 2020)\textsuperscript{15}. Already in the Smart Field Hospital in Wuhan, 5G connected robots are being used instead of people to administer the necessary food, drink and medicine to patients, signifying how much more interconnected societies have the potential to become once 5G is introduced (Watson and Builta, 2020)\textsuperscript{36}.

Impact on Theory

The COVID-19 pandemic has certainly created an impetus which has altered the life cycles of a number of technologies. It is argued by Burgelman that technologies undergo a period of ferment which allows technologies to be refined and perfected by businesses and early users before being embraced by mainstream users (Burgelman, 1996)\textsuperscript{37}. Mainstream users are usually in broad control of when this adoption happens, as they are obviously the stakeholders who use the product and so decide when it is useful enough to them to buy. However, arguably what has been occurring during the pandemic has usurped this trend. Governments, and to some extent businesses, seem to be preempting users’ needs and desires and are pushing technologies earlier in their fermenting period than would have occurred if not for the problems created by the COVID-19 pandemic (Burgelman, 1996)\textsuperscript{38}. This is particularly evident in the Internet of Things applications in the healthcare industry. Doctors and nurses previously did not want to introduce IoT technology to privacy and other concerns. However, authorities have pushed these technologies on these users who have accepted them.

A similar culture change has occurred in the NHS in which, as discussed by Lowe, clinicians have become less resistant to the digitisation of certain tasks. Consequently, I believe that typical paths of user adoption are being subverted due to the fact that most users in the current climate do not know what they want. They don’t fully understand the disease and implications of the disease and thus struggle to act accordingly without following strict guidelines from, at least somewhat, trusted sources, such as the government, and these authorities, due to the public nature of the epidemic, have to coerce those who aren’t willing to follow guidelines to do so, or else face a worsening of the crisis and fail large swathes of the population. As a result, the technology that is being implemented is being produced and received by consumers, such as drones and IoT technologies, due to the fact that users aren’t in as much control of their own decision making due to the uncertainty. The government and large businesses, which have a more developed understanding of the diseases and thus what users need, have
stepped in to provide the technology, even if users would not have previously accepted the technology. This is because those previous concerns pale in comparison to the problems created by COVID-19. This is also clear in the example of drones, given the FAA licensing of Wing, something that would arguably have previously caused public consternation, but has been pushed through because Wing and the FAA understand the need that it can serve better than users at the moment (Taylor, 2020)\textsuperscript{39}. Similarly, whilst too unpalatable for policy makers, the idea that drones could be used as police suggest the same point (Taylor, 2020)\textsuperscript{40}. This because, whilst the decision was ultimately made with the fact that citizens would vehemently reject the idea, policy makers would never have thought otherwise, and so the fact that the idea was mooted, suggested that policy makers were at least considering completely subverting citizens reactions and were instead going to advance a technology which would benefit them in the current environment, even if they had other concerns.

Furthermore, the impact that the problems arising from COVID-19 have had will arguably persist beyond the end of the pandemic, and the technologies will remain at an advanced position on their anticipated growth path. Even following the end of the pandemic, certain cognitive biases will cause reactions to the pandemic to turn into new habits. Following 9/11, Kahneman realised that individuals’ decision making was being greatly affected by a cognitive bias that he calls ‘saliency bias’ (Kahneman, 2013)\textsuperscript{41}. This bias is the idea that individuals hold significant events that have affected them with an exaggerated importance that affects their decision making ability. Saliency bias could be exacerbated for individuals if they also experience a cosmology episode, something which, as discussed by Lowe and Wright (further in text) (Weick, 1985)\textsuperscript{42}. People have been forced to take far more notice of their hygiene than before the pandemic, and certain activities, such as contact with other people in close proximity, have been highlighted as something which is associated with contracting the disease. Many people have lost their jobs and day to day routine as well. Consequently, people may have experienced a sudden loss of meaning, as the uncertainty saliency biases create plays a heightened role. Consumers may latch on to habits that they have recently developed, such as the avoidance of people, so as to help them navigate a situation which they don’t understand and in which their old roles do not apply (Weick, 1985)\textsuperscript{43}.

This is not to say people will totally forgo contact with others, but it is likely that individuals will carry forward these concerns due to their preeminence in their mind (something which Kahneman refers to as availability bias) and their fears will manifest themselves in new habits and ways of reacting to things (Kahneman, 2013)\textsuperscript{44}. For example, I believe that this point will be particularly crucial in advancing the demise of cash. Spending has dropped significantly as a result of the coronavirus, and so when it inevitably rises again as the virus subsides, the demise of cash will be predated on whether this increase of spending includes a significant proportion of cash transactions because cash users are the ones who have lowered spending the most. However, it is arguably more likely that cash users have just converted to non-cash payment methods. Therefore, following the end of pandemic, these users will still hold concerns over the risk of using cash and so may maintain their newfound methods of non-cash payments, and will continue to reject cash. Furthermore, for new non-cash users, they may now find these methods more convenient than cash, having grown accustomed to using them during lockdown, suggesting that cash may not bounce back.

However there are significant variations across the globe with regards to the extent to which this advanced adoption is happening. Given that the main drivers of this
adoption are arguably authorities as evidenced by the IoT health tech and drones, areas where the government is more centralised are able to control citizens more and thus impose technology on them if they deem it to be necessary (Taylor, 2020). These differences can be framed using Baron’s four Is. (Baron, 1995). Baron states that there are non-market factors that need to be considered when looking at business environments which are institutions, interests/ideology, information and issues. These factors highlight the difference between countries and signify why there have been more advancements in some places compared to others. The example that is arguably best used to illustrate this is the difference between the US and China. The US is a democracy with a vocal populace, a great deal of devolution and private healthcare whereas China is an autocracy with both public and private healthcare. Consequently, it is harder for the US to impose and drive the adoption of new technologies as their influence over businesses and users is more limited, and so whilst certain businesses will drive the adoption of technology, as shown by the adoption of VR and AR technologies ahead of mainstream user adoption by the likes of Lifestyle IN 360, their ideology and institutions are less well placed for a single driver to advance user adoption (Birch, 2020). Conversely, China’s dominant institutions and control over information enable them to push technologies such as their Smart Field Hospital in Wuhan, when users may not have previously wanted it, as users have less of a voice and less influence than the government.

To conclude, the COVID-19 pandemic has altered the expected paths of adoption for all of the aforementioned technologies as the problems that it has created has led to uncertainty and the need for new ways of performing common tasks. Technology has been pivotal in navigating this issue, as the nature of the pandemic is such that the less human interaction the better, and so technology can play an obvious role in reducing face to face interaction. What has been particularly interesting is the way that governments have driven this innovation and push for the adoption of new products, as they are the only real authority with the knowledge, resources and impetus to combat the disease and its related issues. Consequently, countries where there is a centralised government have advanced these technologies at a greater rate than their more devolved counterparts. These changes are not temporary, but will likely take hold as the trauma left by the coronavirus leaves an indelible mark in the psyche of individuals across the globe.
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4

What are the implications of COVID-19 for the organisational behaviour and strategy of the NHS?

Emma Lowe

COVID-19 has provided the biggest challenge to the NHS since it was founded in 1948, following the war. The drastic change in external environment naturally changed the NHS’s organisational behaviour and strategy. This has provided the opportunity to analyse the NHS’s decision making and strategic choices in an ongoing crisis and apply the relevant management theories. The initial fear was that the NHS would be overwhelmed. Although this has not proven to be the case, COVID-19 has exposed some of the flaws of the NHS’s organisational behaviour and strategy. COVID-19 has confirmed that flexibility is vital within the NHS in order to respond quickly and effectively to crises. It has also highlighted the need to empower frontline staff and increase collaboration within the NHS. As the NHS emerges from the pandemic, there is an unprecedented opportunity for organisational change. Increasing flexibility and empowering frontline workers should be at the forefront of this change.

Strategy under uncertainty involves a trade-off between acting early and acting later after the uncertainty is resolved (Wernerfelt & Karnani 1987). For corporations acting early may result in a first mover advantage. However, for the NHS, being slow to implement a strategy doesn’t merely sacrifice profits, it sacrifices lives. Eisenhardt’s 1989 study of the microcomputer industry concluded that fast decision making in a high velocity environment leads to superior performance. There is no doubt COVID-19 has plummeted the NHS headfirst into a high velocity environment rife with uncertainty and, with lives at stake, the need for rapid decision making is vital. Making quick decisions with incomplete information and acting early whilst there is still a high-level uncertainty is a more effective decision-making strategy for the NHS than making slow decisions with less uncertainty.

Eisendhardt noted that fast decision makers use more information - not less - than slower decision makers. The information processing view of organisations identifies that organisations require information to cope with environmental uncertainty and to improve their decision making. Daft & Lengel (1986) argued that organisations must have a mechanism to learn about and interpret external events such as COVID-19. Eisendhardt emphasised the importance of real time information i.e. information about an organisation’s operations or environment for which there is little or no time lag between occurrence and reporting. She noted that the greater the use of real-time information, the greater the speed of the strategic decision process. The nature of the COVID-19 pandemic means that information is constantly evolving, therefore, being able to quickly process real time information is essential. The NHS had a number of pre-planned mechanisms in place in order to increase the flow of information within the organisation in the event of an incident. For example, the NHS command and control framework set out the role of a Strategic Coordinating Group (SCG) – a fast moving information-sharing and strategic decision-making group – in which the response of several organisations is coordinated. The NHS also planned to set up area team incident
coordination centres (ICCs) equipped with robust and resilient IT and telecommunications. Their role is to provide information to the SCG by drawing together information on the operational/tactical response of the NHS, gathering information from wider sources and ensuring that information flows efficiently between the chain of command and partner organisations. The NHS’s strategy to set up SCGs and ICCs reflects how the NHS clearly understood the need for accountable decision making and accurate, up to date far reaching communication in a crisis and planned accordingly.

Despite having mechanisms in place to process the information in a crisis, the NHS failed to process and act upon information about the threat of a crisis. On the 30\textsuperscript{th} January the first phase of the NHS’s preparation and response to COVID-19 was triggered. A Level 4 National Incident was declared, and the commissioning board national team took control of all NHS resources. The NHS should have been put on high alert earlier given the warnings about the potential severity of the crisis, especially given knowledge that the NHS was unprepared for the crisis. Exercise Cygnus was a worst-case scenario stress test of influenza preparedness carried out in 2016\textsuperscript{5}. This indicated the threat of inadequate ventilators within the NHS, however, the NHS failed to act upon this known weakness. As we entered the current pandemic, a study by Imperial College London produced a model showing that under any response scenario the number of cases which require intensive care unit admission would greatly exceed the capacity of the NHS \textsuperscript{6}. A lack of foresight into the possibility of a pandemic was not the main issue, but the failure to act accordingly upon this foresight (Bryce et al. 2020)\textsuperscript{7}.

Emotion is integral to high stakes decision making (Eisendhardt 1989)\textsuperscript{2}. Many decision makers face anxiety and find it difficult to make big decisions in the face of high uncertainty (George 1980)\textsuperscript{8}. Anxiety regarding COVID-19 decision making is likely to be very high due to the human cost of making the wrong decisions. Furthermore, the NHS’s response has received a lot of attention from the media which increased pressure on decision makers. All decision making is influenced by our state of mind at the time (Molloy 2020)\textsuperscript{9}. With over 280,000 confirmed cases in the UK, it is likely that decision makers have lost loved ones or have been affected themselves. Indeed, Boris Johnson’s own experience of being admitted into an intensive care unit is likely to influence his decisions regarding the NHS. The changes that decision makers have faced due to the crisis may cause them to experience a cosmology episode (Weick 1985)\textsuperscript{10}. The changes caused by COVID-19 may trigger a sudden loss of meaning to the way things are and how they work. This is likely to induce anxiety, fear and even panic amongst decision makers. Since anxiety can slow decision making, increasing the confidence of decision makers within the NHS is crucial. Fast decision makers develop more, not fewer alternatives because exploring many alternative decisions about a course of action rather than just one increases confidence (Eisenhardt 1989)\textsuperscript{2}. It allows potential decisions to be compared, increasing confidence that the choice made is the right one as well as providing fallback options if there is a problem with the original choice. This further reflects the importance of information within the NHS, as having more information allows managers to develop more alternatives, reducing their anxiety thus increasing the speed of their decision making. It is inevitable that some wrong decisions will be made. In this circumstance, leaders need to be empathetic and encouraging in order to prevent anxiety regarding future decisions from skyrocketing, slowing decisions.
The personal protective equipment (PPE) crisis indicates that the NHS's internal information processing mechanisms were not adequate as it resulted in the NHS employing private information processing companies to help handle the crisis. At the start of the pandemic, individual trusts were responsible for the procurement of personal protective equipment and ventilators. This led to local stock piling by trusts with the most effective procurement staff. These Trusts tended to have better relationships with suppliers. Sako (1992) identified that trust between the supplier and the customer is essential to achieve the benefits of long-term relationships\textsuperscript{11}. The purchasing power and budget size of Trusts had little impact on a Trust's ability to gain PPE as the government promised to cover all COVID-19 related costs. This meant that effectively all Trusts had the same purchasing power, causing trust between procurement staff and suppliers to become more important. This led to areas such as London being drastically hit by the PPE crisis despite the large purchasing power of trusts as their procurement staff were less effective. London Trusts are constrained by national pay scales and can’t adjust salaries to match that of other procurement jobs in London, so the NHS is less attractive to the most qualified local procurement staff. Trust is particularly beneficial in a crisis. As I write this, at least 77 NHS employees have already died from the virus\textsuperscript{12}. This is a matter of life and death. Trust in suppliers prevents PPE supply chains from becoming a greater source of anxiety to NHS staff which can affect decision making ability as aforementioned.

On the 1\textsuperscript{st} May 2020, it was announced that PPE and ventilators would be procured on a national level to prevent Trusts competing with each other during the shortages. The NHS employed private information processing firm Palantir to use a survey to ensure PPE is delivered to the trusts which need it most\textsuperscript{13}. The role of external actors in the NHS's PPE procurement isn’t limited to Palantir. Centralised purchasing of PPE is likely to hand more responsibility to Deloitte who advise the NHS on PPE purchases (Garside & Neat 2020)\textsuperscript{13}. This gives more decision-making authority to Deloitte, moving power away from frontline workers. NHS clinicians provide a vital source of real time information and can directly inform decision makers of the impact of their decisions as they are likely to be quick to spot any unintended benefits or consequences. The PPE crisis may have been avoided if NHS clinicians had possessed more decision-making authority. They understand the day to day challenges faced on the frontline and would have warned of PPE shortages early on\textsuperscript{14}. Ear Nose and Throat (ENT) surgeons have been hit particularly hard by the virus with the early deaths of 2 senior consultants\textsuperscript{15}. The fact decision makers decided that they were not eligible for adequate PPE contributed to this. It is likely that experienced ENT surgeons would have predicted that the nature of their practices which involve aerosol generating procedures meant that they were at a high risk and would have informed decision makers that higher grade PPE was necessary. The NHS may have benefited from taking elements from the Japanese's emergent view of strategy when responding to the crisis. The Japanese tend to have a lower power distance culture within organisations; instead of relying on one strategic planning group to produce a strategy, they use input from below. Organisation acting as information processing systems is essential to the Japanese who value an organisation’s ability to move information and ideas from the top and back again in a continuous dialogue is what the Japanese above anything else. It is this continuous dialogue that creates what the Japanese consider to be a strategy (Pascale 1996)\textsuperscript{16}. As the NHS attempts to recover from the crisis, emphasis needs to be placed on working with frontline staff in order to reflect and learn from the crisis.
Eisendhardt in her 1988 paper Politics of Strategic Decision Making in High Velocity Environments discussed how internal politics slow decision-making processes as they are time consuming, impede the flow of information and create inflexibility and communication barriers\(^7\). The paper found that, the use of politics was closely linked to slowing centralised, not decentralised, decision making. Centralised decision making has allowed for some fast decisions to be made in response to COVID-19 such as immediately stopping all elective work. However, the rigid command structure of the NHS has slowed decision making in other aspects. Decisions suggested at lower levels of the command structure require ratification at higher levels. There is inevitable friction as the decision moves through different tiers of the command and control framework slowing the process. Furthermore, the structure stifles good ideas at the lower levels of command. In a recent paper Pearce et al. (2020) discuss how principles of military leadership should be applied within the NHS during these uncertain times\(^8\). The paper supports Eisendhardt’s conclusion that decentralisation can speed up decision making and supports the Japanese view that empowerment of subordinates is key to effective strategy. COVID-19 is evolving too quickly for a deliberate strategy to be specified and stuck too unerringly. Therefore, NHS leaders must clearly define their intent and give lower level actors the freedom of action to achieve this in the same why soldiers have a degree of independence to act upon their commander’s intent.

The NHS is not only heavily affected by internal politics. Being a government organisation means that external politics can also slow decision-making processes within the NHS. External also impacts the ability of the NHS to prepare and respond to crises with a decade of tight budgets due to austerity measures constraining the flexibility of the NHS. Brexit contributed to a loss of NHS staff which led to the NHS suffering from shortages of nurses and doctors. In crises there is no room for politics to slow decision making. This could be prevented if independent responsibility were to be handed to the NHS so that decisions could be made quickly without interference in a similar way to the Bank of England\(^9\). The British ‘keep calm and carry on’ approach adopted by the government and their failure to act decisively played a role in slowing the NHS’s response to COVID-19\(^10\). Although this wartime approach to the crisis hindered the NHS’s response to the NHS, military imagery has also aided the NHS’s response to the crisis. Oswick & Montgomery (1999) identified the importance of metaphors as they allow for complex ideas to be expressed in a concise manner, allowing managers to quickly solve an organisation’s issues\(^11\). Wartime metaphors such as referring to clinicians as ‘frontline workers’ and wards as ‘warzones’ have been used to capture the need for resilience, camaraderie and adaptability within the NHS. There has been an increase in patriotism surrounding the NHS as a government organisation where the UK public have come together to support the NHS. The rainbow has become a symbol of support for NHS frontline workers, and the image has allowed people to show solidarity similarly to how poppies are used to show remembrance. The clap for the NHS has allowed the country to come together and show support for key workers. These campaigns have empowered frontline key workers, which may make it easier for the NHS to implement principles of military command and continue to empower workers as the pandemic subsides.

As Emily discussed there is no conclusive agreement about what strategy is. It is easy to get caught up in the current meaning of strategy and neglect its roots. Its roots lie in the military, with the word ‘strategy’ coming from the Greek element ‘stratos’ meaning army. Whittington (1993) notes how even today military imagery can be used to influence contemporary strategy analysis in organisations like the NHS\(^22\). Ansoff links his
planning school of strategy directly to military practice. Ansoff (1965) claims that 
reasonality saves time; as we have previously established time is of the essence for the 
NHS. Similarly to within the military, saving time within the NHS saves lives. This raises 
the question as to whether rational or emergent strategies are more effective for the 
NHS in planning and responding to events such as the ongoing pandemic. The planning 
school argues that strategy should be deliberate and devised before it is implemented, 
in the same way military commands arise from the decision-making process fully 
formulated, explicit and articulated.

The planning school’s emphasis on rational preparation has clearly influenced the 
NHS’s approach to strategy. The Emergency Preparedness, Resilience and Response 
(EPRR) Framework produced by the NHS to meet the requirements of the 2004 Civil 
Contingencies Act outlines plans for the NHS’s response to incidents such as COVID-
19. The EPRR supplements specific planning for the most concerning risks on the 
National Risk Register (NRR). In 2017, the UK government in the NRR identified 
pandemic influenza as the greatest threat to national security in terms of likelihood of 
ocurrence and potential severity of impact. In order to plan for this NHS EPRR 
Response Team released the Operating Framework for Managing the Response to 
Pandemic Influenza in 2013, a 27-page document which provided detailed information 
on the strategic planning and response. Thorough planning increases the preparedness 
of the NHS, allowing them to respond quickly. Ansoff is correct to an extent, rationality 
can save time. The paper: Resilience in the Face of Uncertainty: Early Lessons From the 
COVID-19 Pandemic argues that planning and preparedness always trump technological 
reaction and adaptation. Bryce et al. highlight the importance of actionable and feasible 
EPRR plans.

However, planning itself is time consuming and therefore comes with a large 
opportunity cost to the NHS. It is understandable that the NHS did not have a specific 
operating framework for managing the response to a coronavirus pandemic. Planning 
specifically for a pandemic influenza but not for an emerging infectious disease not only 
made sense for the NHS because it was considered to be a bigger threat on the NRR 
meaning that the plans were more likely to be put into use, but also because there was 
less uncertainty regarding a pandemic influenza. Pandemic influenza are more 
predictable and have occurred in the past. There is more scientific evidence regarding a 
pandemic influenza than regarding new infectious diseases. This scientific evidence allows 
for the rational process of deliberate calculation and analysis, making strategic planning 
more suitable for a pandemic influenza than for new infectious diseases such as coronaviruses.

As not all risks can be planned for in the same way as a pandemic influenza, the NHS 
must rely on incrementalism to some extent. In contrast to the planning school, the 
learning school’s emergent strategies are much more flexible and are a product of 
circumstance and chance. Mintzberg (1996) argues that effective strategy should 
combine both the planning and learning schools of thought; incremental learning and 
deliberate planning are both needed and should intertwine. The debate between the 
learning and planning schools was somewhat resolved by Brews and Hunt (1999) who 
proposed that we should learn to plan and plan to learn. The NHS’s EPRR framework 
did indeed plan to learn. One of the main objectives of the EPRR framework is to prepare 
for common consequences rather than every scenario, leaving a vast amount of space
for emergent strategies to arise. Pascale and Mintzberg both favour the emergent view as it is helpful in emphasising the need to learn and adapt. The EPRR framework placed emphasis on the need to learn and adapt with another of the main objectives being to have flexible arrangements for responding to emergencies which are both scalable and adaptable. The EPRR framework simultaneously allowed the NHS to learn in order to plan. Part of the Civil Contingencies Act required NHS organisations to test their plans with exercises. The purpose of this is to help people practice skills. Through these exercises staff learn and adapt, increasing their confidence and knowledge. After these exercises have been completed, the emergent strategies which arose throughout the practice can be evaluated and written into plans accordingly. However, Exercise Cygnus which we previously discussed reflects how plans are not always adapted accordingly.

Even Ansoff (1965) recognised that rigorous strategic planning often resulted in ‘paralysis by analysis’\(^{23}\). The NHS fell somewhat victim to ‘paralysis by analysis’. The NHS’s early overreliance on academic modelling prevented frontline clinicians from contributing to the initial COVID-19 action plan\(^ {29}\). These experienced clinicians whilst working on the frontline discovered new ways of working. For example, clinicians found continuous positive airway pressure (CPAP) machines to be more effective than ventilators. Giving clinicians the ability to quickly inform decision makers of the strategies emerging on the wards may have reduced ‘paralysis by analysis’ and allowed plans to be adapted to fit these strategies. Sound specific planning beforehand may limit the amount of incrementalism and learning an organisation faces later (Brews & Hunt 1999)\(^ {27}\). For organisations such as the NHS rational preparation alone is not sufficient. By introducing a degree of incrementalism into the EPRR framework, the NHS has overcome some of the shortcomings of the planning school. Brews and Hunt (1999) argue that plans must be both flexible and specific\(^ {27}\). The EPRR framework has combined flexibility and specificity, allowing strategic planning to be a source of flexibility not just rigidity.

Given the current environment, flexibility is more important than ever. Hayes and Pisano (1994) highlight the importance of strategic flexibility in turbulent environments\(^ {30}\). They specifically focus on the importance of a flexible manufacturing strategy. The COVID-19 pandemic has revealed the lack of flexibility in the NHS’s manufacturing strategy. Previously, the NHS had a lean production system in place. 23 trusts – including some of the largest – exceeded a 95% bed occupancy in the third quarter of 2018-19\(^ {19}\). This is significantly higher than the OECD average bed occupancy rate of 75%\(^ {32}\). The lean production system provided efficiency benefits to the NHS whilst the environment was fairly stable. However, it meant that there was insufficient capacity to cope with a surge in demand for hospital beds as the environment changed drastically. Pfeffer and Salancik’s (1978) resource dependency theory argued that organisations are not self-directed and autonomous but depend on those who control their resources\(^ {37}\). COVID-19 revealed this theory to be true for the NHS. The NHS is not independent but relies heavily on suppliers of PPE and just-in-time (JIT) contracts. As COVID-19 revealed the weaknesses of the NHS’s lean production system, it simultaneously revealed the weaknesses of the supply chains it depended on. The pandemic increased demand for PPE in the NHS and worldwide whilst simultaneously disrupting the supply chains providing PPE. In 1978, Pfeffer & Salancik discussed how environments are increasingly interconnected. 42 years later, environments are even more interconnected, and the closure of Chinese factories has caused PPE shortages within the NHS. Thompson’s (1967) theory that firms can buffer their technical core from environmental uncertainty with inventories suggests that the NHS would have benefitted from larger stockpiles of PPE\(^ {34}\). Harland (1996) discusses
how developing broader supplier networks can loosen resource dependencies\textsuperscript{35}. Since throughout the pandemic the NHS has had no choice to broaden its network of PPE suppliers, it is likely that the NHS will not face the same level of resource dependency in a future pandemic.

Wernerfelt & Karnani (1987) also conclude that flexibility is advantageous under uncertainty\textsuperscript{1}. Despite Wernerfelt and Karnani’s analysis being through the lens of a private sector firm and their trade-off between focus and flexibility, their work is still applicable to the NHS. They discuss how larger firms have a greater ability to remain flexible due to their economies of scale and ability to ‘come from behind’ meaning they are less dependent on exploiting the benefits of first mover advantages. Like the private sector firms studied, the NHS’s size has provided a source of flexibility throughout the pandemic. The NHS has used its large budgets to buy all the capacity in private hospitals. This has increased flexibility and allowed the NHS to cope with the surges in demand faced as well as allowing COVID and non-COVID areas to be separated more easily.

Barnard (1938) proposed that organisations were open systems meaning that organisations are embedded in and an active part of their environment\textsuperscript{36}. Meyer’s 1982 study of hospitals adapting to a doctor’s strike shows how environmental jolts can offer opportunities for change\textsuperscript{37}. This can be explained via open systems theory. Because organisations are a product of their environment, a change in environment changes the organisation. Meyer’s notes that jolts can disclose hidden flaws within an organisation. COVID-19 exposed the flaws of the NHS’s lean production system. Fortunately, the NHS was able to adapt to by setting up Nightingale hospitals and buying capacity in private hospitals. Adaptations to jolts have an anticipatory, a responsive and a readjustment phase (Meyer 1982). Since the COVID-19 pandemic is ongoing the NHS is still in the process of adapting. However, it is likely that the NHS will reconsider its lean production system with the Nightingale boss stating that intensive care capacity in London will be doubled permanently\textsuperscript{38}. Environmental jolts provide opportunity for organisational change; first order changes will dissolve whilst second order changes will endure (Meyer 1982). As the NHS emerges from the pandemic, it needs to exploit this opportunity and work with clinicians to lock in beneficial changes such as digital patient consultations.

Chandler (1962) proposed that the need to restructure arose from a strategic shift\textsuperscript{39}. Mintzberg later (1990) argued that the relationship between strategy and structure is reciprocal, famously proposing that ‘structure follows strategy as the left foot follows the right’\textsuperscript{40}. He argued that structure changes as environmental conditions change which supports Barnard’s open systems theory of organisations. As COVID-19 changed the environment, hospitals were quickly reconfigured; processes such as the commissioning of services were redesigned, and disruptive transformation occurred across the NHS. Burns & Stalker (1961) argued that structures of organisation much match environmental dynamism\textsuperscript{41}. The NHS previously benefited from taking a more mechanistic form as mechanistic forms are better for large scale firms (Thompson 1967) and fit stable and predictable environments (Burns & Stalker 1961). Loosely structured organic forms are more effective in unpredictable environments (Burns & Stalker 1961). COVID-19 has increased the complexity of the NHS’s external environment, meaning that the NHS, like the small businesses in Emily’s case study, will benefit from taking a more organic form. Taking advantage of the network structure associated with organic forms will allow information to flow more efficiently throughout the NHS increasing the speed of
Major decision making. We previously established the importance of working with frontline staff in responding quickly to a crisis and recovering from a crisis. The non-linear communication channels, which are a key component of organic organisations, would allow frontline clinicians to quickly inform decision makers of strategies emerging on the wards as well as updating them about the impact of their previous decisions.

As aforementioned, environmental jolts provide opportunity for organisational change. COVID-19 provides the chance for the NHS to restructure. This is not only due to the strategic shift but also due to the cultural shift which has occurred within the NHS. Throughout the pandemic there has been an emphasis on cooperation within the NHS. Clinicians becoming less resistant to digitisation further reflects cultural change within the NHS due to COVID-19. However, difficulties may arise as reactions to change are constrained by organisational structures which institutionalise interdependencies. Dimaggio and Powell (1983) emphasise the embeddedness of organisations in their institutional environments. Hospitals inhabit highly institutionalised environments (Meyer 1982) which may prevent change. Making changes to core institutional arrangements within the NHS is going to be difficult. The institutionalised environment is not only likely to prevent the NHS taking a more organic structure, but also prevent it from becoming independent from the government as suggested earlier.

Overall, there has been a degree of increased flexibility within the NHS as they have responded to COVID-19. As the NHS emerges from the pandemic, flexibility needs to be increased within the NHS. This could be achieved by:

- Loosening resource dependencies by expanding supplier networks
- Taking a more organic form by improving the flow of information
- Developing a more flexible manufacturing strategy by increasing spare capacity and inventories
- Reducing the rigidity of the command and control structure by giving more decision-making authority to those at lower levels of the structure
- Taking a more flexible approach to strategy by focusing on the importance of emergent strategies
- Increase independence from the government so that the NHS to reduce the constraints of external politics

Maintaining a flexible approach to strategy is key for the NHS when planning for a second wave as although we now have more information about COVID-19 there is still a large degree of uncertainty regarding the second wave such as whether it will hit and if so, when it will occur and how big it will be. The NHS must also focus on empowering frontline staff and increasing collaboration within the NHS as this would speed up decision making and improve strategy. This could be achieved by:

- Giving frontline staff more independence to act upon intent by applying principles of military command
- Improving communication so that frontline staff can directly inform decision makers of strategies emerging on the ward and of any unintended benefits or consequences of their previous decisions
- Continuing to boost the morale of frontline staff and create a sense of camaraderie via military imagery and empathetic leadership
General Management in Lockdown

- Management working with frontline staff to reflect and learn from the crisis
- Directly involving frontline staff in strategy formation by encouraging them to contribute ideas
- Directly involving frontline staff in strategy implementation by allowing them to lead the implementation of strategies on the wards.

These changes will not only ensure that the NHS is better equipped for future crises but will also improve the day to day functioning of the NHS as we return to the 'new normal'.

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Thank you to Zillah Anderson at PWC for a very friendly and very useful chat about the NHS.

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Will China have more influence in the financial world post COVID-19?

Marcus Tarrant

Studying management and business strategy gives a deeper understanding of the reasoning behind business decisions. This understanding of why business’s act as they do and make the choices they make can help to make predictions regarding their future. COVID-19 presents a unique new set of challenges for business to face, and in particular for the financial sector how to adapt with the entire economy stagnating. This essay will focus on the Chinese financial sector, and if COVID-19 presents a new opportunity for international expansion, or if simply it will speed up the inevitable process of the liberalisation and expansion of the Chinese financial sector. Despite being such a huge economy, strict capital controls have meant that Chinese banks have less international influence. In recent years however, as will be explored later, Chinese banks have begun to expand through various initiatives. This coupled with protectionist American policy has created an environment where Chinese banks could capitalise on an opening in the market. COVID-19 again allows them this opportunity.

Since WW2 and the modernization of the global financial system the USA has remained the dominant power, with Wall Street being the centre for global liquidity and the dollar being the chief means of exchange. COVID-19 and the shutdown of the global economy presents a unique opportunity for the status quo to be challenged, namely by China. The pull from China to become the financial centre for emergent economies in the East is greater than ever. Since the 2013 Belt and Road initiative China has attempted more aggressive expansion of influence particularly in the South-East¹. Not only this but political instability between China and America and the more recent use of Americas financial strength as a threat has led to countries losing faith in the American system. Firstly this essay will consider why America particularly in recent years has faced a loss of trust in its management of their financial power, and then consider how COVID-19 affects Chinese and American banks influence, and how the future will look.

American dominance of the financial world stems from the post WW2 Bretton Woods Conference and the emergence of various systems. The IMF, World bank (both based in Washington, D.C.) and Bretton Woods system of exchange which linked currencies to the dollar all helped the USA to be the centre of financial activity. This stemmed from the fact that most countries were in large debt to America following the war and America had control of most of the planet’s gold. Despite the breakdown of this system the so called ‘dollar standard’ still remained. The 1970’s saw American banks have significant expansion overseas. Firstly through the introduction of Visa and Mastercard purchasing large overseas ATM networks; and in 1973 the development of the SWIFT system for faster and free interbank messaging which eliminated almost all human error. The superior technology coupled with a housing boom and the emergence of mortgage backed securities set the scene for American banks to expand internationally. From 1980 to 2003 America’s stock of securities grew from 105% to over 3x GDP. This coupled with the merging of investment and commercial arms of banks to create the so called ‘big 4 banks’ that give America the financial dominance it has today. America is so central in controlling the worlds liquidity supply that it can
manipulate and use it as a weapon, with almost all of the $1.5\text{tr} \text{ of SWIFTS daily payments being ultimately routed through New York, America has significant power in controlling the worlds cash.}

In recent years there has been a decline in American influence through a number of factors, mostly related to policy. I will firstly examine these factors and consider how COVID-19 may affect them in the future. Since 2001 America has used its financial strength as a weapon to those it considers a threat. Initially it attempted to prevent the funding of terrorist organisations following the September 11 attacks, but in recent years under both the Obama and Trump administration the levels of restrictions have been increased. Under the Trump administration the system has been used more widely, and even against America’s allies. Recently sanctions were imposed on firms building a pipeline bringing Russian gas into Europe, and the continued use of American sanctions will drive business away. Sanctions have also been used alongside other protectionist measures in the so called ‘trade war’ with China. The fact that America has sole control is what makes the system so effective, but at the same time the obscurity of the system also drives other countries to find a workaround. In the same way that America was able to achieve dominance through its superior technology, if China is able to digitalize and liberalise its banking system and compete with America, they will be able to have more control, in particular with emerging economies.

Following the outbreak of COVID-19 banking was one of the hardest hit sectors of the US economy, and recently as other sectors have seen a rebound, financial services firms have not had the same luck.

Compared to the rest of the economy US banks have lost significant value. Value of banks represents levels of investor confidence and predictions for the future. This huge drop in banks values shows shareholders lack of confidence in banks future prospects. Investors have low confidence in banks due to the low interest rate environment which is expected to persist through 2020 and cause large falls in banks revenue. Its value data shows that larger American banks with more international operations are performing
better, as they are less exposed to the low interest rate environment in America; but these banks still have lost significant amounts of value.

The effect of the virus in China was a total shutdown of all services for a period of around 2 months, but due to this policy firms were able to get back running sooner than other countries. Not only this but the effect of the virus was felt less in China as the economy is less reliant on the service sector. Hospitality and service business will remain closed for longer, but China has been able to get a large part of its economy running far sooner than the rest of the world. Coupled with China’s huge agricultural sector which is 10 times the size of the USA’s, the effect of COVID-19 was significantly smaller. This helps to mitigate the overall impact on the economy. and has a knock on effect to the financial sector. COVID-19 presented opportunities for Chinese banks in two ways, firstly, by getting running sooner than the rest of the world presents an opportunity in winning more offshore bond mandates in the country; and secondly the need for digitalization to allow banks to run smoothly during the pandemic puts them on a more level playing field with American firms.

First, China’s advantage in winning more offshore bond mandates will allow Chinese banks to have more influence and control on a more international scale. As China returns to normality sooner so too does it issuer base. The restrictions placed on travel in China mean that it is more difficult for international firms to access the huge client base in mainland China. To an extent the use of video conferencing has worked for bankers and issuers, but predominantly only for higher grade issuers. For access to the capital markets of the many lower tier Chinese corporations and government financing institutions, Chinese banks have the clear advantage. The Hong Kong based investment banking arms of these Chinese banks are able to focus on winning more business in this area. Due diligence is an issue for international investors with these smaller Chinese corporations, and with travel restricted it is even more difficult. Chinese banks however are able to use their set of branches nationwide to provide more in depth due diligence. If the investment banking arms of Chinese banks are able to increase cooperation with the mainland bank branches it offers these banks a huge competitive advantage. This does not mean Chinese banks will seize the opportunity fully. The large state owned banks often do not work coherently together and even see co-workers of the same institution but a different city as rivals. However, should Chinese banks be able to capitalise on this opportunity they would have a large advantage and far more influence and growth.

Chinese banks were affected badly initially by the virus, the lack of customers being able to visit banks caused a large drop in income. However, this presented an opportunity for the digitalization of banks, the leading digital bank, China Merchants Bank’s (CMB’s) has seen an huge increase in its online wealth management business. During the lockdown there was a need for digitalization to allow banks to cope; and this digitalization gives Chinese banks more possibility to expand overseas. In the same way that American banks were able to establish dominance in the 1970s through the use of newer technology, the modernization and digitalisation of Chinese banks due to COVID-19 makes them a viable alternative for developing countries.

Organizational culture in Chinese banks creates an issue for their expansion. Often the systems in Chinese banks remain political, even after decades of reform. This can hinder the banks from global growth, especially in the western world where countries
do not wish to have state controlled Chinese banks. As Wendy Dobson, economist at Toronto’s Rotman School of Management argues, “the government still sets interest rates and all the banks have access to low risk spread income so they have very little incentive to manage risk.” The lack of internal competition faced by Chinese banks and the very strong growth of the economy has allowed them to remain poorly run institutions. However the stress of a recession brought on by COVID-19 could cause creative destruction in Chinese banks. In the same way that it forced the modernization and digitalization of some of the banks services, it could force Chinese banks to abandon the practise of being overly political. Through looking at Porter’s 5 Forces it is clear why Chinese banks have not reached the same level of international influence as America’s. Simply put, it was previously more profitable to remain in China, expansion internationally would not have been profitable. However, in recent years China has looked to tap into the market of roughly 2.3bn people with no access to financial services.

For China to be able to compete internationally with America it must also be able to make its currency - the yuan - more widely accepted. The dollar is by far currently the most widely used currency, with the dollar representing almost half of cross border interbank claims. Not only this but the dollar is also considered the safest store of value, in times of crisis such the dollar value rises. This occurred even after the subprime crisis which was the fault of Wall Street and following America’s disjointed response to the COVID-19 pandemic. This highlights the task China faces if it wishes to make the yuan a more widely used currency. China has focused again on emerging economies in particular by offering and opening up its £13tr bond market.

COVID-19 therefore gives Chinese banks benefits which allow them to expand overseas. However being state owned, it is Chinese policy that ultimately influence the success these banks have overseas. Firstly as mentioned for China to have more influence it has aimed to make the yuan an more widely used currency, again with a focus on implementing this in more emerging economies. From 2017 the number of banks which process Yuan payments has grown by half to 2214⁷. Most additions come from Asia and the Middle East, but even some European countries, notably France. Crucially for China, central banks are now beginning to use and accept the yuan more widely. Since 2016 it has been included in the IMF’s special drawing rights. As China loosens its capital controls the number of foreign holdings of Chinese bonds jumps year on year. As more and more investors are tied to China the yuan and china’s influence worldwide grows.

For emerging economies the yuan also represents a potentially better alternative than the dollar to price exports in. The dollar is considered the safest store of value, during crises such as the COVID-19 pandemic, the dollar value rises, as it did in March⁸. As most countries borrow abroad and price exports in dollars, a rise in the value of the dollar not only makes debt costlier, but imports also dearer. Since 2010 emerging markets stocks of dollar debt have doubled to $3.8tn. China is keen to have the yuan more widely used in these countries. This is highlighted by the fact that the yuan has become more and more an attractive investment on FOREX markets in recent years. Again here COVID-19 highlights to emergent economies the issue with using the dollar.

The Chinese government is also very keen for expansionary policies which will give China more international clout. From a financial standpoint the Peoples Bank of China
(PBoC) has injected more than $240bn of liquidity into the Chinese financial system as a countermeasure.9 Moreover, since 2013 China has pursued the Belt and Road initiative which aims to have Chinese firms win construction projects in Asia. The daily turnover of FOREX instruments traded in Hong Kong has almost doubled since 2013, raising the yuan’s profile among investors. It is this drive in expansionist government policy which will likely mean that in the future if Chinese banks are to have more influence capital controls will have to be relaxed.

This desire for more international influence is reflected in Chinese policy and the global pandemic represents an opportunity for China to expand influence without repercussions. Global trade is likely to fragment due to travel restrictions and supply chain issues leads to government policy aiming to shorten supply chains. This protectionist shift and change in views actually represents an opportunity for China. This distracts attention from China and allows it to write its own rules, the extension of Chinese influence in Hong Kong highlights this. Not only this but as countries have to deal with significant debt, America announced a $2.3bn stimulus package which will surely lower investors’ confidence in the country, as high debt increases the default risk.

Overall it is clear that the pandemic will likely cause even more fragmenting of the already strained relations of the USA and China. As the world economy turns more inward and protectionist in the time of crisis it presents an opportunity for Chinese expansion. The effect of COVID-19 is likely speeding up the process of China becoming a more influential financial power. As its economy modernizes further, and restrictions are eased it is likely Chinese influence will grow, particularly for emergent economies. However whilst the opportunity for Chinese banks exists, they are still a long way from liberalisation and the ability to have significant influence overseas. Chinas strict capital controls mean that it is unlikely to be able to provide the globe with a reserve currency. This, coupled with an overall lack of trust, especially in the west means that it will be some time before Chinese banks have the same international influence. It is clear that in the future America will become a smaller part of the global economy, but for the system to be effective there must be collaboration between China and America, which seems some way off. Despite this COVID-19 to an extent has definitely sped up the process, in particular by forcing digitalization on Chinese banks and highlighting shortfalls within the American dominant system.

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Would it be more effective for businesses to produce on a small or a large scale when facing exogenous shocks such as the Coronavirus pandemic?

Daisy Meade

Businesses of all sizes have felt the effects of COVID-19. For large businesses with international operations, what may present itself as the most immediate threat is the fact that the virus is accelerating previously existing trends, namely the end of a global era in trade. Globalisation is the primary reason for Western dominance in many industries as well as high living standards throughout the developed world. Although international trade over the last few centuries has caused varying degrees of improvement for individuals in certain countries, the opportunity of a larger scale market, the distribution of goods, technology and ideas, and cheaper methods of production have been a net gain for the world economy. Nonetheless the concept of creating a good or service by using resources from around the world has morphed in recent decades, from something that unites the world to something that challenges the cultures of different countries; presenting more of an obstacle for developing countries rather than an opportunity. China for instance reopened its borders to global trade in the 20th century after cutting itself off in the wake of the Han Dynasty for ideals of self sufficiency. The rapid growth and rise in living standards witnessed is testament to the benefits globalisation can offer, however today the country faces growing political tensions with other global superpowers such as Australia and the USA.

In addition, global disruptions such as the 2008 global financial crisis was an example of how interconnected economies dependent upon one another through trade and global manufacturing leaves many industries exposed to exogenous shocks. A rise in uncertainty across the world caused deep economic suffering for many countries interconnected by global trade. Finally a growing trend that threatens the future of global business is the political and cultural shift to regionalised production. Trump for example aims to bring home some outsourced production, namely cloth manufacturing that at its decline led to high structural unemployment in regions dependent on these manufacturing companies. Most recently Trump has appealed to large technology companies like Intel to produce their hardware on American soil (The Economist, 2020). Not only does this protectionist attitude circumvent trade with other countries, it breeds a culture of distrust in the overseas nations it once had a shared endeavour with. Now the Coronavirus pandemic has once again caused disruption in the form of logistical issues and social distancing regulations. Whether large scale operations spanning across nations will be able to thrive in the wake of this new challenge may depend on various factors: If the benefits of global trade are still worth reaping for developed countries who have developed sophisticated technologies at home, if globalisation is still popular amongst global superpowers facing political unrest, and if trade was always destined for a return to nationalised, self-sufficient economies, and this virus is simply providing these industries with an accelerator effect.
For smaller scale businesses, an alternate set of concerns have been brought to fruition by COVID-19. Regular operations will be heavily disrupted by social distancing measures, which for a smaller business may be more costly to implement due to a lack of existing resources to cope with such external shocks. Furthermore, the domestic consumer market is often the main source of revenue, which for those producing nonessential goods or services could dry up altogether. Schemes such as the UK’s Coronavirus Recovery Loans and payment of up to 80% of salaries through the furlough scheme may keep these businesses afloat for some time. However governments have already conceded that not all will survive (BBC News, 2020). Their survival is more likely to be dependent upon whether these small firms can adopt innovations to continue sales, and perhaps take advantage of a changing local community spirit as domestic consumers empathise with business owners around them who have all suffered similar hardships at the hands of the virus.

The initial reaction to the pandemic that was felt in international business began - like the virus itself - in China. China is a key player in modern global trade, through both being considered the global workshop for many manufactured goods, but also in its capacity as a consumer market. A dense population such as China’s is conducive to cheap labour as well as high consumption. Its role in terms of globalisation has been revealed to be far greater than anticipated by the pandemic. Originating in Wuhan, the initial shutdowns of Chinese provinces and cities began to send tremors of unease across global markets, as trade was immediately affected. Due to the high volume of products that are either made, sold, assembled or pass through China, trading of manufactured goods was one of the first areas of normal life to realise the severity of the virus and its long term impact on future operations. China is the self-proclaimed epicentre of modern trade, despite being a relatively new player. Its fast-developing economy over the last few decades has been supported by its strong trading ties to global superpowers such as USA.

Although even before Coronavirus, there were efforts being made by companies to leave the China-centric method of production. For example, the American bicycle manufacturers Giant Manufacturing Company the fear of 25% tariffs on its parts and products imported to the USA from China spurred relocation of production to other providers such as Thailand, Vietnam and Taiwan (Wang, 2019). However what had been found is that despite a need for the Made In China era to decline, the capacity to manufacture at large scale for low cost does not exist beyond China that can accommodate all businesses, leading to supplier costs rising as production shifts. Scale in this case is only a further headache for these businesses, not a tool for growth as assumed in traditional theory. Problems existed before the pandemic, and the accelerating effect caused by COVID-19 on cultural shifts for businesses has led companies to reconsider such a spread-out supply chain. Political tensions is a key factor diverting trade from China, as growing tariffs and now bitter remarks on the inception of COVID-19 in Wuhan from President Trump establishes international trade as the pawn in this game, affecting millions of businesses and customers. Just six months ago, the greatest threat to modern economies was considered to be this heated affair, with tariffs on Chinese goods imported to the US rising from 10% to 25% due to an inability to negotiate and come to a suitable arrangement. Now the virus weakens these economies, businesses reliant on Chinese imports, exports or simply China as a resource may use this disruption as a means to detach from a country whose political future is as tense as its economic future now each have become so interlinked. The future for large scale firms that have previously found competitive advantage in
harnessing resources from across the world looks precarious. Virus-related regulation is just another cost that may finally tip international trade into unpopular territory, as global trade is also weighed down by the threat or imposition of tariffs, border controls and difficult political tensions that demand constant monitoring to navigate. COVID-19 is a dangerous threat, yet it is far from the only one.

Another way to look at the effects of COVID-19 for both small and large scale firms is to apply Whittington’s four perspectives on strategy to determine where the firm fits within the model and therefore the way in which the pandemic affects their business.(Whittington, 2001) For example a large, e-commerce business such as Amazon has a deliberate process that has been improved and perfected to work at a high level of efficiency; scale and continuous innovation have made each delivery a seamless function. The size at which they operate also means they can be open to a multitude of objectives, not limited simply by the need to survive or to make profits. This places Amazon in the Systemic quadrant, which encourages listening to the environment and responding to changes within it.

Although spanning across many countries, Amazon’s future success will be determined by how it can implement national regulations in each country it operates and whether it can remain a trustworthy brand for customers to rely upon. This may shift their strategic focus towards marketing for example, and how the Amazon brand can be presented through advertisement as a constant, reliable brand customers should use over other online retailers. Bezos prides himself on his aggressive investment, high growth strategy that rewards him with economies of scale and create a dynamic strategy that can respond with flexibility to its environment. Famously he treats each day of operations as Day One, to illustrate how he is always seeking ways to improve (Liu, 2020). Nonetheless, smaller scale provides a different set of advantages that may place such a firm in better stead for the future beyond COVID-19.

Orchard’s Cider and Perry Company - a small scale fermenter of ciders, vinegars and perry based in Brockweir in the Wye Valley - have been a refreshing source of optimism during the pandemic. Their unshakeable survival borne out of emergent strategy has become a model of resilience for a business of any size. Locally sourced ingredients and freshly pressed onsite, the business would usually sell its range of products at local farm shops, pubs, village festivals and markets. Lockdown and general wariness of maintaining social distancing initially spelled disaster for a firm such as this; operating in a traditional way that relies so heavily upon customers being crowded in a single space. Furthermore the attractiveness of English countryside is what introduces new customers to the area and to its locally crafted drinks. Travel restrictions and cancellations of any opportunity
to sell put Orchard’s in a difficult position, especially in a season where highest revenues can be made and apples and pears are ripening. When speaking to Keith Orchard - the business owner - these concerns were apparent, but sales figures showed little disruption (Orchard, 2020). The accelerating effect of the virus in business could be found even here, as how sales managed to continue was a forceful nudge into online retailing. Although an online delivery service existed for Orchard’s, meeting 1-2 orders per week did not seem financially viable. Collaboration is ultimately what has saved this business, alongside 14 other small scale producers.

As featured on Countryfile, Wye Valley Producers is a click and collect delivery service set up within weeks of the pandemic hitting the UK which offers the same wares the Wye Valley has to offer, ranging from gins to coffees to sweets to local meats, all in one place. The experience of visiting a village market or fair cannot be replicated with social distancing measures in place, but eagerness to support the community has not yet faltered. Such a service not only continues operations of Orchard’s, but it demonstrates how a collaborative approach to save local industry works, despite going against the nature of competitive strategy. The shift to online retailing could not have come at a better time for the Wye Valley to some extent, as changing attitudes in consumers makes this effort more profitable. A refreshing patience for queuing has been instilled in consumers as it has been quickly accepted to be a new normal. This means consumers are happy to wait for their weekly collection slot and are pleasantly surprised to find their order pre-prepared and delivered straight to vehicles, reducing waiting times on the day of collection.

For Orchard’s this endeavour may not be as profitable as a regular summer season in the Wye Valley, as draught sales carry a higher profit margin. Contracted production of glass bottles and labelling and the need for preservatives make for a more lengthy production process for Mr Orchard, nonetheless the continuing of sales has bridged what could have been a desperate time that may have only recovered slightly once orders for Christmas gifts began. For Mr Orchard another unexpected benefit of the lockdown has in fact been a break from tourism, which can often be damaging for the local economy as disrespectful visitors litter and generally disturb the otherwise idyllic area. From a business perspective however, what remains clear is that the small scale at which Orchard’s operates has not prevented adaptation to this exogenous shock but has provided the firm with an agility not shared by its larger competitors. The ability to set up a technology in the business for example was as simple as setting up a website. If a large institution attempted to incorporate a new software, this could be a lengthy, costly process. Collaboration with other business owners facing the same set of external threats to their livelihoods also has proved a key factor in the survival of Orchard’s, as having all local products available in a single place is as close to a traditional market that modern technology can provide. Speed, innovation and small scale in this case proved to be the key advantages that prevented damaging effects for Orchard’s.

Management theorists could examine the changes firms of any size may make through the lens of competitive strategic planning. Michael Porter’s Five Forces (1979) approach offers a more realistic explanation of what firms of all sizes seem to be practising in the wake of Coronavirus due to its external focus (Porter, 1979). When an exogenous shock such as this threatens regular operations, firms turn to the environment to understand how their operations will be impacted. The five forces outlined by Porter are competition in the industry, the threat of new entrants, the power of customers, the power of suppliers and the threat of substitute products. Orchard’s have turned
their attention to many of these factors, such as understanding the power of the customers by assuming with confidence that a click and collect service would be utilised by regular consumers. Orchard’s have chosen not to prioritise competitiveness by instead focusing on the power of the supplier as they recognise that supply would be better supported if accompanied with other locally sourced produce. In larger companies, we have witnessed attempts to appeal to the customer through rebranding and advertisement to portray a trustworthiness not previously emphasised. A recent trend many supermarkets for instance have followed is finding deeper meaning in their original slogans. Tesco now express that “More than ever, every little helps”. This marketing focus is a fast, reactive way a larger firm, with otherwise fixed internal resources in the short run, can demonstrate concern for the wellbeing of the public beyond any in-store social distancing measures.

Looking to the future, both large and small scale firms have the opportunity to succeed. For large organisations, the future of global trade is dependent on a variety of variables both theoretical and practical which can be divided into three key approaches:

1. Business as Usual

We have established that in theory businesses both large and small may choose to take this virus as their chance to rebrand, to diversify supply chains or to refocus strategic focus away from more traditional ways of generating profit such as building scale. However, in times of crisis either external or internal, the main focus of firms shits towards survival, which may prevent any drastic changes. Population ecology theory may lend itself in this instance, as an external threat is only a further reminder of how it is solely the environment that selects which businesses thrive and which businesses fail." Focus on a single objective may prevent long term strategic planning from taking priority, meaning any opportunity presenting itself in the wake of the pandemic may not be fully realised or carried out.

2. China +1

A term coined by The Economist article ‘Torn Apart’ , this describes a less China-involved future, but not a direct severance of it. China’s heavy involvement in global supply networks has left several industries vulnerable to logistical disturbances in a single location. Investment in other countries that offer similar opportunity such as Vietnam, where Google have decided to assemble their newest Pixel smartphone model, serve as an alternative for firms to diversify their supply chains so as to not be as exposed to future risks. As the title suggests, these ventures exist alongside current Chinese operations. Businesses will want to continue current Chinese operations to some extent as a result of the clustering benefits of manufacturing in an area where sharing ideas and resources surrounding manufacturing is advantageous. In addition, only the larger firms that can afford to incur large setup costs will make this strategic move. By this reckoning change will occur in global trade, and arguably for the better as the nature of the trading will be more global again. This invites other less developed countries to make the same improvements China did in developing from an agrarian economy to a manufacturing economy, bringing with it a host of advantages such as increased average living standards, labour opportunities and the further dispersing of technology and ideas. Notwithstanding this, it must remain evident that these benefits are not uniformly distributed either within a country or between trading nations. In addition, not all firms
have the capacity to expand in such a way, so smaller scale firms may have to continue demanding from China.

3. **Regionalisation Through Travel Bubbles**

Closure of borders is one of the clearest and most immediate disruptions that have occurred as a direct result of COVID-19. This may have forcibly pushed companies into searching for alternative suppliers and also relying more so upon domestic consumer markets. Small scale business such as Orchard’s for instance have seen an unusual rise in demand for bottled produce as British consumers explore options beyond the local pubs. As borders slowly reopen, countries will find it easiest to trade with neighbouring nations as so-called ‘travel bubbles’ form (The Economist, 2020). These are already taking shape, between Australia and New Zealand, across Canada and the Americas and also through China, Japan and other East Asian countries. If the resources exist in these regions, it may become more economical to turn to more local options for materials, labour, manufacturing, etc, as opposed to scouring the global market for a cheaper alternative. Although such a system would be improved by free movement of people and other measures to build trust between involved governments, it chiefly deals with the threat of COVID-19, containing healthy people within nations that are free from the virus, and likewise containing any future spikes in transmission. A potential future in ‘bubbles’ addresses the new health and safety demands that the pandemic will bring as well as detangling political strife in and amongst the global trading realm. For the economies involved, business would shift from a liberal market economy, where firms interact at arm’s length and are governed by formal contracts, to a more coordinated market economy, where firms have the chance to interact more closely, build trust and implicit contracting can exist as these relationships develop over time (Hall, Soskice, 2001). Such a shift in attitudes would go further to combat the growing tensions that exist with trading partners, which experience shows can play havoc with businesses when tensions escalate to trade wars. Nonetheless, whether it would a viable efficient venture depends on availability of resources in certain parts of the world, for example such protectionism may leave less developed countries such as those in Africa without the support of global demand for their agriculture and natural resources. In addition, such a system would require high standards of testing and tracing to maintain trust between involved governments.

Considering the future of Orchard’s Cider and Perry Company, the options for how they move forward appear to be more clear-cut and more dependent upon consumer behaviour. For Mr Orchard, the Wye Valley Producers click and collect service will only remain a lifeline for as long as demand holds out. If next year local producers can return to traditional methods of selling, this is likely to be the case as for Mr Orchard, this is where revenues are highest. Online sales can be beneficial to an extent, but the logistics of this endeavour are currently being overseen by local producers, who when they can redirect their attention to just their own produce, may not have the time to manage the project any longer. As the Countryfile episode aired on 24th May raising awareness of this innovative sales technique, collection slots became fully booked whilst on air. Such enthusiasm is heartwarming, but has the potential to be brief especially once experiential methods of consuming these products are reintroduced, even if it is in a ‘new normal’, socially distanced way. As quickly as the service was set up, it can just as quickly fall into disuse. For Mr Orchard, technology he admitted was not a strength, so for many producers in a similar position a return to market selling will be welcomed and the
profits achieved by click and collect may dwindle. Uncertainty for the future business model of Orchard’s Cider and Perry Company is unlikely to faze Mr Orchard and other small businesses though, as they have proved that with an emergent strategy that is so highly reactive to the consumer, it is not they who will make the final decision on how the business will operate but the customer. Population ecology theory is highly trusted in a setting such as this, as the environment is wholly accountable for what businesses will and will not survive (Hannan, Freeman, 1977). Yet the collaborative nature of the innovative initiative seen in the Wye Valley combats the threat of competition driving others out of the market, ensuring all small producers have an equal chance to succeed amidst the pandemic and beyond.

Economist Oliver Williamson believed transaction costs were one of the key reasons as to why firms exist in their modern form, and is what results in the size of the business (Williamson, 1981). For Orchard’s for example, Mr Orchard observed that gross sales are slightly up on weekly sales, however profit margins are down due to the product style as bottled goods incur higher per unit costs than draught (Orchard, 2020). Transaction costs may have increased in production, however the cost of setting up a website is zero, therefore reducing net costs in sales. Advertising presence at a market or festival is a setup cost that Orchard’s have benefitted from circumventing. Coronavirus is in fact reducing transaction costs, which by Williamson’s theory makes for a more profitable business. In contrast, large institutions such as Tyson Foods - a large American meat supplier operating in an oligopoly market - have faced high costs in implementing social distancing practise as their capital is positionally fixed (The Economist, 2020). Operating at reduced capacity and in many cases closing several plants indefinitely has affected the food supply chain rapidly and in a very devastating way. Transaction costs in this case are only rising as the business is having to provide COVID-19 testing for its staff and compensating 2800 workers who cannot get into the factories. The cost of bringing a product to the market for sale is a key component of any business’ decision as to whether operating is profitable. Applying Williamson in this case then demonstrates that the smaller scale businesses have succeeded to a greater extent than larger firms, as they have been opportunistic in reducing transaction costs and are not as reliant on a specific asset like draught cider in the case of Orchard’s, providing flexibility with how the product is sold and where.

From this research we can conclude that the future of both large and small scale businesses is dependent upon the actions they take in light of COVID-19. When considering those operating on a smaller scale, innovation plays an important a role in creating profit, as well as appealing to the local community, who may hold a personal connection to the business. Flexibility in where and how the product is sold is a key trade off to producing the good or service at scale. When considering a powerful external shock such as Coronavirus, economies of scale do not protect a firm against all fragilities. The benefits economies of scale provide are limited by public perception of the brand, and a new importance being given to health and safety standards. Trustworthiness will determine the future of many companies. Also take for instance the American meat supply chain. The logistical failures that have led to mass culling and excessive wastage could have been prevented if the industry was not monopolised, as having four key players meant once a single business couldn’t maintain social distancing (Tyson Foods), millions of Americans were affected (The Economist, 2020). The cracks exposed by this pandemic will provide opportunity for businesses and industries to improve practises and make them less susceptible to external shocks. If a winner were to be selected at this point in the unfolding of this historical event, small businesses have
developed the competitive edge to weather this storm. By innovating and using their current resources effectively, the advantages that allow for flexibility in strategy and structure will ensure the survival of many small firms despite the absence of scale and its associated benefits.

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What is the impact of Coronavirus on small businesses and their strategy?

Emily Wright

If I was to summarise my first-year reading management, my key takeaway would be that business and strategy are one and the same. To compliment someone’s business is equal to complementing the successful strategy underpinning it. To sit down and question the impact of coronavirus on small businesses is the same as judging their business strategy before and after the pandemic, and most importantly how it evolved throughout the duration of such an unprecedented time. As I write this, we are in the midst of such turmoil, giving me the opportunity to analyse the before and middle, and room to make predictions on the effects of strategy in the future. Through real-life case studies, I will depict a variety of business reactions to the crisis, interwoven with government action into reviving an ambushed economy.

Throughout management literature there is no conclusive agreement about what strategy actually is. Even books and papers that are titled “What is strategy?” by the likes of Harvard University Professor Micheal Porter or “What is strategy? - and does it matter?” by Said Business School professor Richard Whittington, cannot offer an ultimate, conclusive definition. For example, Whittington (1993)\(^2\) elusively concludes on four approaches to strategy that all ‘differ widely’; meanwhile, Porter (1996)\(^3\) states “Strategy is creating fit among a company’s activities. The success of a strategy depends on doing many things well - not just a few - and integrating among them”. While Porter offers a statement resembling the form of a definition, it is imprecise and vague. The words used are misleading, as “doing many things well” suggests a successful business strategy involves outputting a range of products, not specialising, yet the detail of paper discusses ‘positioning’ as a fundamental strategy technique, which requires only producing a subset of the industry or satisfying a segment of the market in order to do well. The Google definition of a table is “Noun: a piece of furniture with a flat top and one or more legs, providing a level surface for eating, writing, or working at”, hence giving an exact description of a table and its uses that does not widely vary depending on which dictionary you refer to. A complete definition for strategy like this does not exist in a universal manner across business literature. In some cases, strategy is interpreted as an evolving process that makes the business what it is, while other more practical writings depict a strategy as rules set out at a single point in time that are then carried out, but are regularly reassessed.

This ambiguity perhaps boils down to external markets constantly evolving at varying paces, and having multiple influences that often overlap and can mask one another, leaving no concrete mould for what strategy is, or where it even starts and ends. Coronavirus offers the opportunity to look and understand business strategy in a new light, as perhaps never has the entire business environment changed so rapidly as a result of one universal problem. While financial crises are often widespread, they affect some businesses more than others, and often hold resemblances to historical crises, aiding businesses’ response strategy. COVID-19 is completely different to anything in modern
history, hence meaning the modern corporation will have no previous experience on how to tackle it.

The one thing that is certain about strategy is that it is needed for business survival, and therefore is most definitely at the centre of all businesses right now. Perhaps normally, strategy is a slow moving process, as the external environment slowly changes at the pace of new technologies. However, this case is completely different. On the 20th March 2020, the Prime Minister announced the closure of cafes, pubs, restaurants, night clubs, theatres, gyms and many other businesses. This meant as quickly as the Prime Minister could give the instruction “close tonight... not to open tomorrow” strategy must be in the process of changing. This fast rate of change of strategy on such a wide scale may give us a better insight into pinpointing the exact effect of Coronavirus is on the strategy of small businesses.

The announcement of a strict lockdown in the UK on the 23rd March physically pushed the UK economy into unrest. As of early April, the Corporate Finance Network was warning that between 800,000 to 1 million firms nationwide were at risk of closing, hence showing the desperate need for survival strategies to be implemented. While the government only instructed the closure of particular industries, the sheer scale of the lockdown sent ripples through the entire economy. Consumer confidence collapsed as people became uncertain by the time scale and outfall of this lockdown period. Certain industries moved online smoother than others; for example, logistically the retail market could easily function via a website, however the luxury goods market was set to decline by 30% as people like to have personal viewings and personalised services before purchasing (Swithinbank, 2020). The lack in consumer confidence fuelled uncertainty amongst businesses; the Federation of Small Businesses blamed the Coronavirus outbreak responsible for 87.7% of small businesses suffering a reduction in confidence (FSB, 2020). The worst hit industries were the arts, entertainment and recreation, whose confidence fell to -178.5 on the FSB index, and accommodation and food services (-186.9) (FSB, 2020). These industries knew their current business strategy was not going to work and that they would have to rethink, and fast. According to the Corporate Finance Network 18% of businesses were going to run out of cash in the next few weeks of lockdown (Verity, 2020), showing the desperate need for the government grants, loans and furlough schemes. However, it is important to note that while the government schemes were a lifeline, they were only a tool used to keep businesses’ head above water, businesses had to teach themselves to swim in this new climate. Government aid is finite, and therefore at some point in the future would stop, so businesses needed to think of new strategies to survive in the changed world.

Researchers predict that small businesses, especially those with under 20 employees, will be hit the hardest; ‘The smaller the company, the harder the hit’ (Small Business Trends, 2020), mostly due to the lack of cash flow. Also, many of these small businesses provide critical services to their community, hence were given government instruction to remain open so were neglected by government aid as they could not furlough their workers, and instead had to keep afloat, despite massively diminished demand. The effects of COVID-19 strike small businesses particularly hard, but small businesses also have a dynamic edge over how responsive they can be. Small businesses are subject to less regulation and can often execute new strategies faster due to their smaller scale, hence making them an interesting focus point. At the centre of this analysis will be 4 businesses that have been interviewed to generate detailed case studies of private firms.
changing their strategy in order to maintain profits. Within these businesses are examples of them thriving in the new environment, as well as examples of businesses struggling to adapt and having to rely on government intervention. The essay will also look into how the private sector has begun to serve the public sector, selling products to the government such as PPE and accommodation services for nurses. The 4 local businesses interviewed are: a pub, dry cleaning service, dance school and a gin distillery. All four businesses responded in different ways, making an interesting case for drawing similarities and differences between their varied strategies.

The final focus of this essay will be on small businesses that have redirected themselves away from profit motivation, to helping the government, as many businesses begin to produce PPE or provide accommodation for carers. Literature on business psychology provides arguments for why this move towards privatisation happens in a crisis. This essay will evaluate whether this is necessarily the most efficient way to re-coordinate, as well as if strategy has been permanently changed in the future. This is particularly interesting as the current pandemic has forced society to question a lot of its previous ‘normalities’, including how we judge value.

**What have been the key strategic responses to COVID-19?**

To begin with, the local pub has always been a feature of its village, and its marketing strategy has been focused on the community feel of its customer base. This meant its survival strategy was also centered around its local following. Pre COVID-19 the pub had an inside and outside area, serving drinks and food from a large, varied menu. The strategy it has implemented in response to the pandemic includes: reducing pub opening times to 4 days a week; largely reducing the menu, such that it only offers particular meals each day, like fish and chips on a Friday, and all served as takeaways; selling large cocktail mixes or beer barrels to be consumed off the premises; and opening a shop in the pub, with social distancing precautions, stocking essentials (e.g. eggs and flour) and local goods from within the village, including artwork. It easily sourced local supplies of flour and eggs, purchasing the supplies in bulk, and then repackaging into smaller packages themselves. There were no shortages faced with the actual food, rather the packaging materials, such as egg boxes, as their factories had to close due to them not complying with social distancing requirements. This was overcome by asking the local houses to save up and bring any spare boxes to reuse them. All purchases of ingredients became more local, for example the flour was donated by mills that were owned by members of the village. As the flour was donated, it meant for every bag of flour purchased the pub could then make a donation to charities chosen by the community. They adjusted the menu to provide food that would replace the gap in the market that had come about due to large-scale companies, like KFC, having to close. They could rapidly change their kitchen into a takeaway service because of their smaller nature, meaning they could fill the gap in the market, while these large corporations were left behind. By doing takeaway fried chicken, fish and chips and kebabs, they attracted many customers, up to 350 covers per week, as these were mostly meals that people couldn’t cook at home. They also sold their beer barrels and large cocktail mixes by marketing the products as an accompaniment to online quizzes and socialising. As the rules relaxed, and visitors came to the village to exploit their footpaths, they began to sell more drinks as takeaway portions to consume in nearby parks. Overall, the pub has been successful in its strategy, allowing it to remain open through the crisis. The profits made have been
reinvested into building an outdoor bar and kitchen, in order to satisfy social distancing rules as restrictions relax and the pub can recommence other services in the future.

Secondly, the dance school continued to run classes for older students and adult gym sessions, by moving their classes online. Like the pub, they had a community focus in its new strategy, proposing that weekly classes were a way for older students to keep in contact with their friends and continue with some normality in lockdown. The fitness classes for adults were marketed by exploiting the social media trend of keeping fit in lockdown. The hardest part of the dance school was maintaining business for the youngest students; usually the dance school offers classes for students as young as preschool, who are too young to follow classes via platforms, like Zoom. This meant the dance school was forced to lose this customer segment, however they are maintaining demand from these customers for the future via other marketing techniques, such as online sing-a-long sessions featuring well known movie characters. The owner of the dance school stressed that the focus of her survival strategy was to maintain communication with all their customers, as even if they can’t provide a service now they want to be at the forefront of the consumer’s mind when they can provide the service again in the future. The dance school is categorised in with other businesses, like gyms, that are likely to be one of the last to open, so being able to set up an effective sustainable strategy is important. Moving the classes online is a sufficient way to keep students up to date with practising their technique. The dance school usually has a show during the summer term, something for the students to work towards, so as this has been cancelled the school had to replace this in some way. To do this, the school’s social media platforms have been running competitions in order to keep students engaged.

The gin distillery has probably had the most drastic response. They have suffered from significant spare capacity, due to pubs and bars closing thus reducing their demand for gin and other spirits. However, they have put this spare capacity to good use, using their knowledge of ethanol to produce hand sanitiser. The company followed WHO guidelines to produce a formula that is 70% alcohol, which kills viruses and prevents them from spreading. They have then been able to supply businesses and GP surgeries with their product. This has meant they are still able to employ their production team, however the sales team, who specialised in selling their liquor products to bars and restaurants, has been furloughed.

For the dry cleaners, the response has had to be quite different to the other businesses as it is harder to adapt its line of business or move online. The main speciality for this business is cleaning suits and workwear. It therefore mainly serves white collar workers, who are now working from home, hence demand has significantly reduced. Meanwhile, a smaller part of the business provides a laundry service, deemed an essential service by the government, meaning it must remain open. The business needs to weigh up the costs and benefits of remaining open with a significantly reduced cash flow. This has involved opening for significantly reduced hours, and redefining how they judge success each day: rather than how much profit they have made, they are counting how many key workers they’ve helped. From this figure they are then making a judgement about whether their business is making a significant difference to the community, and whether it is enough to justify remaining open in a time when shops are not a safe place to be.
Choosing these 4 businesses has given this essay a broad scope of various strategies. The pub sufficiently adapted its business activities enough to continue outputting a large number of its services, providing food and drink, simply by introducing a takeaway service. The dance school could also largely continue with original business by moving online quite easily, a strategy that has been followed by many service providers, such as in the real estate and finance industry. The gin distillery completely changed its line of business by redirecting its production lines to produce hand sanitiser, a product now highly demanded due to the current situation. Lastly, the dry cleaners was different in the fact it struggled to adapt, mainly due to its industry rather than poor strategy implementation. While the other businesses have been able to redirect business to continue to make profit, the dry cleaners main focus is staying afloat in order to continue providing the essential service to the community. While no business was trying to excessively profit off the back of COVID-19, as this would have been bad from a social responsibility point of view, the gin distillery, pub and dance school were all able to redirect their strategy to continue functioning as a profitable business. The dry cleaners suffered the most, reporting in some cases it would’ve been better to close, but rather they stayed open in order to ensure no member of their community was ever denied their essential service.

How do the strategies implemented complement the theory?
Throughout management literature the relative importance between understanding a business's internal assets versus the external environment has been debated. Some academics followed the likes of Porter whose academic ideas, including the '5 Forces Model' (Porter, 1979)\textsuperscript{12}, put external environments as the top priority. They suggested by understanding your industry's structure and characteristics, categorised by 5 forces (the threat of new entrants, supplier power, buyer power, competition and the threat of substitutes) each business can best determine their most successful strategy to tackle the industry. They will aim to position themselves where the forces are weakest, where they are most suited to combat the force or use it to their advantage. While this method provides a clear framework for making judgments about how best to get a competitive advantage relative to their external environment, it has also received criticism. When changes in the environment occurred, it meant this positioning method had to be re-evaluated, hence Porters method provided no stability or consistency. This would make it a particular problem under the current circumstances; COVID-19 rapidly changed the business environment, and continues to cause sudden and unexpected changes. Government announcements are often made and expected to be carried out quickly, giving very little time to adjust strategy. This means a strategy only based on the external environment would be extremely volatile and unsustainable at the moment. In all 4 business cases, the success of their strategy has come from looking at internal assets and seeing how well they can be used to compliment the external environment, in other words they combine both an understanding of their internal assets and the external environment.

This theory of analysing your internal resources follows in line with the Resource Based View. This view believes a sustained competitive advantage can be achieved more easily from exploiting internal rather than external factors (Barney 1991)\textsuperscript{13}. For example, both the pub and dance school are using their integration into their local community to drive their current strategy. Likewise, the gin distillery knew its key asset was its understanding of the treatment of ethanol, which can be easily adapted to making hand
sanitiser. Initially, if you only analyse the external environment of the dry cleaning industry you would perhaps suggest their businesses could offer services to cleaning PPE. This may be appropriate for other businesses in the industry, however, for this specific dry cleaner their machines specialise in luxury goods dry cleaning, like suits, rather than the sterile cleaning of medical wear. This shows the importance of understanding your internal specialities and limits. Each strategy is unique to each firm, even the firms that may appear similar on the surface. For example, the pub was successful at doing a takeaway service. On the surface, it could be implied that the strategy could also be successful for a similar pub down the road. However, if the second pub is part of a chain, it will not have the same community feel. The local people go to the independent pub in order to support the business, the pub owner reported his customers making a conscious effort to come to his shop and his takeaway service in order to make sure the pub is still there when we come out of lockdown, for a larger corporation, this sense of personal responsibility may not be as prominent.

How you then organise the business to successfully carry out the strategy within the firm is also unique to each business as there is no one best way of organising, instead successful managerial action should consider internal and external factors that affect the business (Fiedler, 1964)\(^4\). For example, the dance school was focused on providing an extracurricular activity, rather than training every student for a career in dancing. This ethos allowed the business to be more tolerant in lockdown, e.g. not being strict with attendance. If instead the dance school was focused on training every student for further dance education, it would have needed a stricter regime. Organisation structures can be organic or mechanistic, whereby mechanistic forms fit stable and predictive environments and organic forms are better in unpredictable environments (Burns and Stalker, 1961)\(^5\). This means organic organisations aid the quick installation of a change in strategy so are seen in dynamic industries, whereas mechanistic organisations are good for large scale, specialised production processes (Woodward, 1965)\(^6\). Firms with an organic structure are more likely to have responded and successfully installed a new strategy, rather than a mechanical firm that is less flexible. This is because organic forms tend to have a network structure, so authority and communication flows efficiently through the business. For example, the successful gin distillery business is used to its competitive industry, so is able to rapidly design and produce new flavour variations. This made their business structure suited to quickly organising the hand sanitiser production process.

A big part of these organic organisations are the non-linear communication channels, meaning all employees’ voices reach the decision makers efficiently and do not have to go via different levels of employment. In small businesses, this tends to be the case more than larger corporations, where they need hierarchical structures to keep organised. However, research indicated that this network structure of small businesses has still increased due to coronavirus, as networks now go beyond the business’s walls. Both the dance school and pub reported being part of larger community groups with other businesses, in which they could share information, experiences and what they were doing. This increased the generation of ideas, making the businesses even more innovative.

The alternative structure to organic is a more mechanical approach. For example, before the crisis the pub was a successful business that had a monopoly over its local village and therefore never experienced intense competition or having to keep up with a rapidly evolving environment. This meant it had a more mechanical organisational form.
This perhaps made it harder to initially instigate change as they initially closed for the first 3 weeks of lockdown before reopening as a takeaway service. When they then reopened, they then had a more organic approach; the pub owner increased the communication via social network groups, for example he recounted running out of egg boxes and posting on social media and within hours he had enough. This shows how the current climate is so unpredictable businesses are being forced to have a more organic approach to overcome unexpected problems.

The degree to which a business is established and developed can also aid a firm’s ability to readily enact change, as a business’s capacity for innovation depends on its stage of evolution from a small start up to a major high volume specialist producer (Abernathy and Utterback, 1978)\(^7\). The newer the firm is, the more organic its structure will be. An older firm will have a higher degree of specialisation and a set way of doing things. The 3 businesses that adapted the most - the pub, dance school and gin distillery - were all new startups or taken over in the last 5 years. The typical lifecycle of a business would see major system innovations initially to establish the businesses, followed by frequent minor product and system improvements, increasingly specialising the system (Abernathy & Utterback, 1978). The older company, the dry cleaners, was well established and specialised in its service of cleaning luxury clothing items, like suits; innovative change therefore was much harder, due to its high degree of specialisation. On the other hand, the dance school has recently employed a lot of new staff members. As they had only recently got used to the previous way of teaching, they could quickly adapt to teaching online. Also, in order to advertise the takeover, they had increased their social media presence over the last year, making it easier to manage moving entirely online. A new business strategy also requires a new marketing strategy. The dance school’s previous marketing was selling the additional value of having face to face teaching, to analyse the students’ technique. Obviously, via Zoom this is no longer possible, so the marketing strategy had to change. It used the community spirit aspect, advertising the health wellbeing you get from keeping in touch with people and having a routine.

However, changing your marketing strategy can also put you at a disadvantage. Via marketing, businesses are able to build themselves a brand, so that people associate value with the brand name. For example, the gin distillery felt their customers saw them as a high quality gin producing brand and so trusted the safety of their hand sanitiser product. This example fits the theories of Aaker in *Brand Extensions* (1990)\(^8\), which described the benefits of using a well-established brand name to introduce a new product as it meant consumers trusted it. However, extending a brand to a product too far-fetched could also be ‘damaging’ (Aaker, 1990) as it can lead to negative associations. The example Aaker used in his research was Levi’s, who in the 1980s moved into tailored suit production. This attempt failed due to the brand being too well associated with a cool, relaxed look. This meant customers didn’t trust it to provide a high quality, tailored suit. This example fits with the gin distillery as when asked if they would continue producing hand sanitiser, they mentioned it may be bad for their marketing if they carried on doing so after the crisis. Their brand’s image is about producing a luxury gin, and they felt this image could be detracted from if they carried on producing this product beyond it being this period of significant need. The hand sanitiser may lead consumers to associate the brand with cosmetic products, rather than its high end gin production. Likewise, the dance school reported they’d like to get back to face-to-face teaching as soon as possible, as while the community aspect has been critical in lockdown, it is not the main goal of the dance school. That is why their marketing has also included sharing
their students technical progress on social media, to remind students of their true goal. Finding a new way of marketing to compliment the new strategy is important, providing it isn’t contradictory towards the key image of the business.

Why in a crisis do we favour government led strategies over the private sector?

Other radical changes in strategy have included entirely private firms beginning to serve the government, for example by producing PPE or providing accommodation for carers. Some of these goods and services are donated: for example, many large designer clothing brands, like Burberry, have donated PPE; many large hotels companies have donated beds to NHS staff, such as the Millennium Hotel, with the hotel owner, Roman Abramovich, paying for the cost of accommodation. Other smaller businesses who cannot afford to donate their products are still providing their services; OYO, a hotel company, agreed to house carers at £25 per night, expressing “this is not an exercise in profitability” rather “to cover the minimum costs of keeping these hotels in operation.” Since then, the NHS have said they will reimburse hotel accommodation of staff who have been affected by the 14 day household isolation period. In order to get the service reimbursed they must secure accommodation via a single government organised programme. By coordinating hotel accommodation in such a nationalised way more critical workers are able to continue work, when they otherwise would have had to isolate. It also prevented inequality between regions where hotels were able to offer the accommodation for free versus those that needed payment. In this way, a national approach has been effective at overcoming this strategic issue caused by the coronavirus. However, why does our instinct make us move towards a national approach and is this the most effective strategy in all cases? Currently, everybody who’s life has been affected by coronavirus is likely to be experiencing a ‘cosmology episode’ (Weick, 1985)\(^2\), which occurs when our ideas of normality fall apart, including our faith in social positions, authority etc. This has a negative impact on our emotions and ‘our ability to think creatively and make good decisions’ (Molloy, 2020)\(^3\). Due to this loss of problem solving ability we revert back to habitual beliefs and practices. This provides a reason for the use of war metaphors surrounding the coronavirus response (Molloy, 2020). This constant reference back to World War 2 has perhaps influenced the deployment of techniques similar to those used then, like the nationalisation of efforts across the country. However, whether this is actually the most efficient technique needs to be questioned.

The government’s initial strategy to coordinate PPE deployment failed as many companies reported feeling ignored by the government. For example, a UK company Interflex is now selling 1 million items of PPE to care homes around Europe as they experienced a lack of communication following their offer to the UK government (Asgari and Hughes, 2020)\(^4\). They reported the government did not respond at all for a 5 day period, and when they did respond they were asking for information that had already been sent to them. This really exhibits the inefficient way the government was trying to run this system. The business owner reported “It’s a chicken and egg situation; I can’t afford to buy the materials if we don’t have orders” (Asgari and Hughes, 2020), essentially expressing the fast pace needed in business that the government efforts were not keeping up with. Meanwhile, there are examples of private led initiatives of businesses successfully distributing PPE, e.g. New World Development, an owner of
department stores in mainland China, has partnered with NGOs and developed a QR system code that vulnerable groups can use to access free masks from vending machines (Webb, 2020). There have been similar business efforts in the UK; for example, a group of London-based designers established the Emergency Designer Network (EDN), who have coordinated British suppliers of medical grade textiles with textile workers able to manufacture the product (Webb, 2020). This indicates that due to business being faster and more innovative than the public sector, it can be used as an advantage during the crisis response and perhaps instincts to revert back to nationalisation isn’t the most effective strategy.

The private businesses working for the government are examples of COVID-19 forcing the move away from businesses being solely profit focus. The pandemic has led to questioning the ways we normally value people and their work, for example there’s a shared feeling in society that many critical workers, such as nurses and carers are underpaid. The cosmology episode we are experiencing is making us question our current norms and values, which does not have to be a negative thing. It can also be regarded as an opportunity. The removal of these certainties force us to question how we judge value and what is important. This can be seen in the business case studies also: the dry cleaners began to judge if it remained open on how many key workers it was helping day by day, rather than the profit it was making; the pub was stocking local artists work in their shop, despite receiving no profit from doing so, in order to support local incomes too; and the pub also donated any profit made from the selling of flour in its shop to charities. While there was limited opportunity to profit from the pandemic, even those who could have made profit chose not to, often volunteering their produce to those who needed it or selling it at a minimum to cover their costs. The Emergency Designer Network stressed how their strategy was entirely dependent on textile workers’ volunteered time, in order to keep their costs as low as possible when selling their PPE to frontline workers. The pandemic has made society reflect on its traditional judgments of value. When the government released an official list of ‘critical workers’ many took to social media to criticise the lack of recognition for these workers beforehand. Any company shown to be profiting from the pandemic would be criticised in a similar way, hence many companies saw it as their responsibility to provide their resources at minimum cost. Any business seen to not be socially responsible during this time and exploiting the current situation is likely to be heavily criticised.

Has strategy changed for the future?

The pandemic has forced strategy to adapt in a way it never has before, requiring it to be faster and more flexible. Those companies that succeeded were the most efficient at adapting their businesses to the current regulations and climate. Part of this flexibility has come about due to businesses losing their profit obsessed mindset. Moving away from being solely profit focused meant firms were more willing to share ideas, build up a community, reduce their prices and re-address their priorities. For example, the drycleaners found a lot of frontline workers were bringing in their washing for the laundry service as they didn’t have time to do it themselves. The laundry service is the least profitable part of the business, however the dry cleaners still prioritised this above any other work it had to do, for the sake of the key workers. You can see this mindset is nationwide, not just in the firms I have looked at, as networks have begun to be set...
up to facilitate this communication between local businesses on ideas about how to be more flexible and combat risk. For example, Facebook has set up a Facebook Business Hub with tutorials on being adaptive; it encourages staying up to date with information; constantly communicating with customers that means they can stay up to date with the current business strategy; and moving the business online. The information hub has also given businesses advice on implementing a strategy that is resilient to risks. Perhaps before COVID-19 there was a mindset that the 21st economy could overcome anything. This may be partly due to the bailout of banks in 2008, leaving a mindset that any problem too severe the government would intervene to fix. This meant businesses did not invest sufficiently in realistic standby strategies that could be quickly coordinated to overcome risk. In the post COVID-19 era, business strategy will become more flexible, as the pandemic has proved external business climates can change unexpectedly. Strategy will also become less profit driven as the whole of society has become more appreciative about what is actually important, for example recognising the critical workers. Many corporations have made gestures for these workers, for example Taylor Wimpey has offered key workers 5% the price of their houses. This means the entire consumer body is now more sensitive about what companies are doing with regards to social responsibilities, hence any company now seen to be exploiting their workers or resources is more likely to receive negative attention.

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Emily Wright is from Colchester and went to Colchester Royal Grammar School. She was motivated to study E&M by the variation between classical economic theory and the real business world. She felt it was a degree that set her up to have a strong understanding of classical theory with real-world insights, which in turn would help her succeed in the world of business.
How have supermarkets been able to adapt to deal with the problems caused by the COVID-19 pandemic?

Gideon Blankstone

Supermarkets are an essential element of our lifestyle in the UK, and like almost all other businesses have seen significant disruption to their operations. From a trip to the supermarket being previously thought of as just a necessary chore, during the first few weeks of lockdown due to the COVID-19 pandemic a shop visit became many people’s only time they left their home in the day. From early March when the toilet roll, flour, and pasta shelves were empty, it was clear that supermarkets were going to have a difficult job of managing their way through the crisis.

In this article, I will examine how supermarkets were able to continue operations during the lockdown, and how they navigated a nearly 50% increase in grocery sales¹, whilst having to contend with staff illness, social distancing, supply chain problems, and the potential huge losses in both profits and the damage to our society if the supermarket sector was unable to cope with the extra demand. Lenin was once quoted that ‘a society is only three meals from chaos’, and if supermarkets failed to adapt during the lockdown, then our society may look very different from now. For this article, I will focus mostly on the actions of Tesco, Sainsburys and Asda, which had a combined market share of 58% in January 2020.²

I will assess three main areas that supermarkets have adapted. Firstly, I will evaluate the marketing strategies used by supermarkets, and how these strategies changed at the start of the lockdown. With a combined £450m spent by the ten largest supermarkets³, this is an area of significant spending, and was key in the battle against increasing pressure on supply chains, as well as managing PR during the lockdown. Secondly, I will examine how store management changed during recent months, with a focus on worker management and customer management. With social distancing guidelines and limits on numbers allowed in a store at once, firms had to adapt their customer service, as well as how they organise staff and contend with those shielding or self-isolating. These changes in store have been the most obvious for consumers. Finally, I will explore how supply chains were affected in the UK. I will focus on panic buying and firms’ responses to this phenomenon, as well as global supply chain issues arising from COVID-19 related policies in different countries around the world. I will also explain how firms were able to overcome these challenges by introducing effective supply chain adaptations and policies to combat increased demand, which allowed supermarkets to ensure that the fears of widespread food shortages were never realised.

Marketing

Marketing is a fundamental element of the supermarket sector, with the 5 main supermarkets of Sainsburys, Tesco, Asda, Lidl, Aldi all spending above £50m annually on advertising campaigns⁴. For the analysis of how marketing has changed, I will use the 4
Ps as the framework. The 4 Ps are price, product, place and promotion, and is considered the framework for managers (Chekitan & Schultz)\(^4\). By using this model, it will be clearer to see the changes made by supermarkets in the marketing strategy.

When looking at the products offered by supermarkets, it is clear that increased quantities are now available in order to deal with increased demand. For this article, I will evaluate how the offering of products in terms of range and quantities changed during the pandemic in a later part of my article when I will discuss supply chains and the problems caused by panic buying.

The placement of supermarkets has not changed since the start of the pandemic, due to the short time period that the pandemic has occurred during. There has simply not been time for supermarkets to change the location of the stores and thus the pandemic has not affected this element of marketing.

With regards to price, the BRC-Nielson shop index calculated a 1.8% annual inflation for April 2020, up from the 12 month average of 1.5%\(^5\). This is a not insignificant increase in prices, but the most obvious change in marketing strategy in terms of price comes in the use of deals by supermarkets. Since the onset of the pandemic, the number of promotions has significantly decreased for all major supermarkets, with Tesco down 34%, Sainsburys down 29% and Asda have decreased their deals by 40%. This has been exacerbated even further in specialised stores such as Ocado, that have reduced the number of deals by 95%\(^6\). An IFS study found similar results when assessing changing grocery prices, with an inflation rate of 2.4% for groceries, with over half of this inflation caused by a 1.5% fall in promotional deals sector-wide\(^7\). This is a clear change in strategy employed by the sector as a means of offsetting the increased cost to supermarkets to buy fresh produce (expanded in the Supply chains section). By reducing the number of deals, supermarkets are able to increase the revenue gained on numerous products without clear price increases noticed by consumers, thus allowing supermarkets to maintain their appearance of low prices. This is an extremely effective method to increase revenue without having a widescale increase in headline prices. Furthermore, many of these cancelled deals were on products with a longer shelf life, which supermarkets have far less pressure to sell and thus don’t need to offer deals to shift stock. Considering that this has been a sector-wide policy, the firms don’t have to compete as much with each other on deals, thus allowing the whole sector to benefit from the policies.

There has been a major shift in promotion techniques used by supermarkets. The narrative has changed from one of trying to compete by offering lower prices in advertisements, to emphasising the national effort required. Sainsburys have changed their refrain from ‘live well for less’ to ‘help us feed the nation’ – signalling a clear change in emphasis. This was echoed by Tesco, with their new campaign slogan ‘some little helps for safer shopping’. Both of these campaigns have seen significantly higher approval ratings than normal, with over 30% of those in focus groups finding the advertisements informative, relative to the 8% average. Furthermore, the same study suggests that over 20% polled felt that both advertisements were ‘socially good’ and worth sharing, far higher than the 7% average\(^8\). This suggests that both Sainsburys and Tesco have run campaigns that both improve their image as socially responsible firms, as well as being informative and helpful to customers, achieving the two key aims for an advertising campaign.
There has also been a shift in the amount of promotion that supermarkets have been using, with numbers of advertisements decreasing significantly. The Co-op cancelled their £2.5m Easter campaign, and data from the US indicates that supermarket advertisements being run 44% less frequently over the Easter weekend of 2020 relative to 2019. It would be fair to assume that numbers of advertisements from supermarkets have therefore also fallen in the UK. There are numerous reasons for why this might have occurred. First, from a cost standpoint, running less advertisements during a period of economic uncertainty makes financial sense. In addition, due to supermarkets being one of the few shops that remained open, there was less of a need to promote their stores and by running less promotional deals, there is less to advertise.

Overall, the marketing strategies employed by supermarkets during the COVID-19 Pandemic evolved massively in terms of the 4Ps, especially in terms of price, promotion and, as will be examined later, product. Their marketing strategies has helped supermarkets evolve successfully during the pandemic.

Store Management

The changes in store management has been the most noticeable impact of COVID on customers at supermarkets. Store management involves the organisation of employees and customers in store, in effect how to keep workers safe as well as ensuring that customers remain satisfied. Store management can be separated into two subcategories – worker management and customer management. By focussing on these two key elements of store management, it becomes clear that significant changes have been implemented since social distancing guidelines were introduced.

The first major problem that supermarkets were having to contend with was government guidelines for those ‘shielding’, over 70s and/or with underlying health conditions, and others self-isolating, with up to 50,000 Tesco employees being told not to work after 20th March. With increasing numbers self-isolating and extra demand generated by panic buying, more workers were required in distribution centres and on the shop floor to restock shelves. This led to a relatively uniform response from across the sector, with large increases in recruitment during this period and the closure of cafes and fresh food stands such as the fishmonger being closed. The closure of these stands allowed workers who were previously being utilised below their full capacity – as these stands are often less busy than the rest of the shop floor – to now be far more productive in store. By utilising workers more efficiently, the increase in productivity would have helped offset a small amount of the cost of keeping all self-isolating workers on full pay, a response that was consistent throughout the sector.

Individual firms have also introduced extra policies to support their employees. Tesco is providing free mental wellbeing help online to all employees to help deal with the anxieties of the pandemic, and the negative impacts this can have on wellbeing. Along with Sainsburys, they have offered a 10% bonus to all employees also as a ‘thank you’ for the extra efforts and the risk of catching the virus. Asda is offering a full extra weeks’ pay for those who don’t require to self-isolate.

Customer management has changed dramatically, with the shopping experience being vastly different once social distancing guidelines were implemented. The most obvious
difference is the queue system now being implemented outside all major stores to ensure that there aren't too many people inside at any one point and distancing becomes difficult. A key problem that the queue system aims to prevent is bottlenecks that may start appearing in the aisles next to the checkout. Should these bottlenecks appear, social distancing becomes more difficult, and both staff and customers are at a greater risk. In addition to the outside queuing, all trolleys are wiped down before entry to the store, and customers are encouraged to use hand sanitiser before they collect their trolley. Furthermore, protective screens have been installed at checkouts to protect staff and customers from close contact, as well as an emphasis on cashless transactions boosted by increases to contactless and Apple Pay. Regular announcements are made about social distancing throughout the store, and coupled with bibs on staff reminding people to keep their distance, it is almost impossible to forget that the shopping experience has changed dramatically.

Certain firms have used this opportunity to improve the technology within stores. Sainsburys have rolled out ‘SmartShop’ devices that allow customers to scan their own items whilst shopping, which allows them to skip queues at checkout as their bags are already packed, and paying is extremely efficient. This is an effective way for customers to reduce social contact with staff, and helps reduce the previously mentioned bottlenecks at the tills. Sainsburys has also upgraded all of their 3500 self-checkout stations, with the firm claiming that this has increased the self-checkout process by 4%\(^3\). Though this is a small difference, I believe this to be an incredibly effective way to boost shopper experience without having to make a major change to operations.

All stores have also increased their capacity to help those who are shielding as well as key workers. Home delivery has seen a massive boost in use and availability, with Sainsbury’s increasing by 50%, Tesco by 100%, and Asda by over 55%\(^{13}\). Tesco achieved this by hiring over 4000 new drivers, as well as limiting shoppers to 80 items to free up space in delivery vans, and only allowing one delivery per week to allow more households to receive deliveries\(^{14}\).

When assessing how store management has changed since the start of the pandemic, it is clear that supermarkets have been able to adapt their in-store and delivery practices to adhere to social distancing guidelines. These adaptations have allowed supermarkets to operate with a significantly reduced risk of transmission of COVID-19, whilst also ensuring the shopping experience remains pleasant and simple.

Response to Market Shocks

Demand Shock

During the initial weeks of the lockdown, supermarket supply chains were under an exceptional amount of pressure. There was extra demand caused by the shutting of the hospitality sector and panic buying, with Sainsburys seeing an increase in grocery sales of 29% in the week up to 14\(^{st}\) March, and a massive 48% in the week up to 21\(^{st}\) March, the day after the closure of the hospitality sector\(^3\). In addition to the extra demand, global supply chains started to suffer disruption due to COVID-related policies, such as border closings, and transportation of fresh produce suffered major price increases. Supermarkets responded and introduced new methods to combat panic buying and bolster supply chains, which were ultimately successful.
To understand the significance of a demand increase, the nature of supermarket supply chains have to be understood. Supermarket supply chains operate similarly to the lean production system, where inventory isn’t held in huge quantities. Krafcik (1988) explained that by reducing inventory there is less wasted products that don’t get used. This idea is particularly important for supermarkets when dealing with fresh produce that has an extremely limited shelf life. This system requires a high amount of communication between supermarkets and their suppliers, and can face significant problems when there is a rapid increase in demand or a supply shock.

The main cause of the increase in demand was due to panic buying. Yuen et al. (2020) argued that panic buying occurred due to four main reasons: individual perception of the pandemic and scarcity of food, uncertainty, coping mechanism, and social factors such as influence of the ‘herd’. Once the pandemic took a hold in the UK, the perception of the disease and the perceived scarcity of food led many people to stocking up on supplies to both ensure that they had enough food should supply chains fail, and to reduce the ability to catch the disease by not being required to go food shopping. This caused many people to act in a similar fashion, which in turn causes food shortages, and thus more hysteria. As this spreads through society, the ‘herd’ encourages more and more people to partake in panic buying, further exacerbating these problems. Particularly before lockdown was implemented, there was fear of everyone becoming infected, and the message to avoid contact caused people’s visits to shops culminating in far more products being bought than normal. In addition, food shopping is a coping mechanism, and during times of uncertainty consumers like to stock up on food as it allows them to feel as though they have regained some element of control over a situation that is entirely out of their control. All these factors combined to produce images on empty shop shelves that many in the UK became familiar with during the early weeks of the lockdown.

Panic buying was not the only cause of the demand increase. Once restaurants, pubs, bars and hotels closed, supermarkets had to pick up the extra meals that these firms once provided. The weekly UK expenditure per person is around £14, and the supermarket sector had to fill this gap, particularly in the first few weeks when takeaways remained mostly shut. Fortunately, once lockdown had been implemented, the panic buying had reduced (grocery sales 4% lower than normal at Sainsburys). However, hospitality industry closures meant that supermarkets had to ensure a consistent increase in the supply of groceries.

Supply Shock

Global supply chains have suffered during the pandemic, with significant disruption to cross border transportation. Stephen Blankstone, a fresh produce importer for the last 26 years, explained the impacts of global COVID policy on supply chains in the UK. Air freight has seen the most obvious impacts, with a massive reduction in the availability of cargo space. Many airports have closed in less developed countries over fears of importing COVID-19 cases, and the grounding of large numbers of passenger planes have led to a fall in air freight, with passenger planes often carrying cargo in the hold. Blankstone stated that the price of air freight had tripled from roughly $1 per kilogram to $3. This is an extremely significant increase, considering $1 per kilogram cost is around half of the overall cost to suppliers to export their produce. This caused a
shortage in certain products as the UK supermarkets were unwilling to meet the increase in prices demanded by suppliers.

Stephen Blankstone further explained the impacts on sea freight, commenting that despite a massive fall in the global oil price from around $50 per barrel in February to below $0 in April, there has been no widespread price changes. This has been due to the number of services being reduced due to a fall in demand for goods such as cars, causing a shortage in space available on large freight boats in certain regions of the world. Furthermore, local laws regarding COVID-19 vary on how to respond to a positive test. Mr Blankstone referred to a boat operated by Hamberg Sud that required to be quarantined for 2 weeks off the port of Santos, Brazil, leading to long delays in the delivery of goods. This poses particular problems for supermarkets importing fresh produce, as the two week delay can cause the products to be spoiled. When asked directly how common this has been over the previous few months, the lack of surprise from the suppliers suggested to Blankstone that this has been a frequent event in South American ports, which can over time cause shortages of supply of fresh produce to supermarkets, as well as price increases.

In the even earlier stages of the supply chain more significant disruptions have occurred during the growing and packing of fresh produce. A specific case study explained by Blankstone was about the problems Bolivian lemon growers have faced. Bolivia imports many accessory items involved in production including wax for lemons and other materials for packing. Border closures with neighbouring Brazil and Argentina, where most of these accessory products are imported from, has caused production to cease in many regions until borders reopen and trade can continue. This has reduced their output of lemons by ‘around 50\%', and had a direct impact on the supply of lemons available to the UK and European supermarkets. The result of the low supply of lemons, the market price that supermarkets are forced to pay around Europe doubled from around 15p to above 30p – with a single lemon in Sainsburys being around 30p. This means that supermarkets were forced to make a loss on lemon sales during recent months. Though making a loss on a single fruit is unlikely to have a significant impact on total profit, similar scenarios are ‘likely’ to have occurred with other fresh produce, thus having a larger overall impact on total profit.

Supermarket response

As a result of the previously explained demand and supply shocks, supermarkets had to rapidly adapt to ensure they had enough food available for the population. The most obvious policy introduced sector-wide was rationing, particularly at the start of the pandemic when demand was at its peak. Supermarkets introduced a limit of three of the same item across all stores, with some essential items such as eggs and flour limited to one item in certain Tesco express stores, in an attempt to slow the emptying of the shelves. Despite this new policy unseen since WWII, flour, pasta, toilet roll and other household items remained difficult to find in store for much of April.

These limits have mostly been removed because supply chains have been improved to cope with the demand increase. Tesco increased their orders to UK farms, with the farms redirecting orders from now reduced operating restaurants and other hospitality sector firms forced to remain shut. Some farms were able to increase deliveries to Tesco
by up to 300%\textsuperscript{19}. Furthermore, many suppliers simplified their range of products on offer, with one toilet roll firm reducing their range from 33 products to 10, allowing them to focus on the products with extra demand. These policies, along with the adoption of extra suppliers have allowed supermarkets to solidify their supply of certain products, and by reducing opening hours in 24hr stores, there is more time for restocking to occur.

A major difficulty that supermarkets were forced to confront was their inability to use the price mechanism to its fullest extent in order to deal with supply and demand shocks. It must be noted that despite the 2.4% inflation explained earlier, supermarkets have not massively increased their prices as much as the market would dictate them to. There would be fear of a PR disaster should it appear as though supermarkets were profiting unfairly off the uncertainty caused by the pandemic. This forced supermarkets to keep prices low and find non-price methods to change the supply and demand for food in the UK.

With the peak of the pandemic behind the UK, and normal life starting to begin again with the reopening of non-essential retail, supermarkets could be forgiven in believing that the end of their challenge is near and that they can slow down their rate of adaptation and settle back to more ‘normal’ functioning. However, this can’t yet occur as long-term questions still face the managers in this sector. There is the potential for a supertax to be imposed on supermarkets as a result of their revenue increases during this time period, so firms must ensure they remain focussed on keeping costs low so a supertax doesn’t wipe out any profit from recent months. Furthermore, with the COVID-19 pandemic at different stages around the world, with it receding in Europe, rapidly growing in South America, and different states within the USA at various stages, there is a strong likelihood of continued supply chain issues globally. Supermarkets could use this time to forge new relationships with UK suppliers to provide extra protection from global supply shocks, and ensure that food supply will remain high even during a potential second peak in the future.

Overall, I believe supermarkets have responded to the challenges posed by the pandemic well in terms of both their duty to ensure food supplies for the public and by finding methods to keep costs low and stores running efficiently. Their strong marketing was able to reinforce the message from the Government about social distancing and what stores were doing to protect customers. The store management of employees and customers was also effective and, most importantly, uniform across the sector allowing customers to receive a clear message on how supermarkets were functioning during the lockdown. The introduction of rationing was a bold decision that undoubtedly created some element of fear, was a rapid response to the increasing panic buying that was occurring throughout the nation. Bolstering the local supply chains was also a strong response to the ever destabilizing global markets during March and April. Supermarkets will be one of the few sectors that has navigated this period without seeing a significant fall in profit or revenues, though other examples such as Amazon is in a far less competitive market than supermarkets. For this achievement, I believe managers in the supermarket sector deserve a large amount of credit. However, an overall judgement on whether supermarkets have been truly successful will depend on revenue and profit figures released over the coming months, and if supermarkets are able to maintain a strong supply of food if the hospitality sector reopens or a second wave of the pandemic
hits the UK. Only once the disease is no longer a part of society will supermarkets be able to call their response successful.

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18 https://www.dailyfx.com/crude-oil

Gideon Blankstone is from Manchester and went to Manchester Grammar School. He chose E&M as he has an interest in both theoretical economics and its practical application when managing a business. He liked the fact that the course provided him with the chance to study a range of different theories, and to structure his studies to best suit his abilities.
Conclusion

Applying theory to several practical situations has revealed that in many cases theory is applied after describing the situation. This leads us to question whether the theory simply fits the situation or that theory was actually used in formulating a strategy to combat COVID-19. In many cases we discuss the need for emergent strategy to deal with the effects of coronavirus due to the unpredictable nature of the external environment. However, it is doubtful whether management theory was consciously consulted in these decision making processes.

A particular challenge faced was that management theory is not designed for flexible application across countries as we have attempted to do here. Much of what we study originates from a 20th century, American white man describing their findings in the setting of a large private sector firm. Therefore, applying these findings to a British public health organisation or an international airline for instance can become problematic as factors such as culture, scale and management style mean that theory does not always exactly fit the real-world example.

When dealing with future uncertainty, we have all established that business objectives change towards the customer a lot more. Bureaucratic management is not as popular when dealing with human lives as compassion is necessary in order to achieve marketable success. Some shareholders for instance may be impressed by almost 50% increases in revenue of leading supermarkets, however more will be concerned about the levels of sanitisation and social distancing in place.

Now COVID-19 becomes a universally accepted fact of life, organisations will continue to adapt and will hopefully no longer resemble a scramble for resources or ideas for adjustment. Nonetheless companies are hardly to blame for their hasty response as planning for an apocalyptic event such as this is not covered in studies of general management. In fact many theories assume ceteris paribus to directly avoid considering complications that can arise outside of a perfectly sound strategy. Reality unfortunately is not as kind to businesses, therefore judgement made on their capacity to run smoothly alongside a global health crisis must take this into account.