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Crossrail Report

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Crossrail, renamed the Elizabeth line, is a new high speed rail that is currently being developed to connect London's busiest National Rail stations with central London. This project is the most significant ever undertaken in the UK costing £14 billion (Crossrail, 2017). Crossrail has made many promises including improving journey times, easing congestion, offering better connections, and changing the way people travel around London. This 73 miles of track stretches west, Reading and Heathrow, to east, Shenfield and Abbey Wood, and back again (The Sun.co.uk, 2017). Work on this rail started May 2009 and the Elizabeth line is expected to open fully December 2019, and once the line is in operation 200 million people are expected to use this line every year (Evening Standard, 2017). Crossrail will consist of 40 stations, 10 of which will be new. Crossrail is expected to increase central London's rail capacity by 10%, bring an extra 1.5 million people within 45 minutes of central London, and add an estimated £42 billion to the economy of the UK (Crossrail, 2017). But will this project really be successful for the city of London, most of these statistics are coming from Crossrail itself. Will the new rail really help with congestion, if so how long will that last, there is already talk about Crossrail 2. Is Crossrail addressing the problem of transportation and congestion or is it distracting us from the real problem of overpopulation? I have chosen to look at Crossrail using two models Porter's Five Forces model, and the Value Chain analysis.

Porter's Five Forces model, developed in 1980, is a competitive analysis to determine an industry's attractiveness. The five forces that make up this model include competitive rivalry, bargaining power of suppliers, bargaining power of customers, threat of new entrants, and threat of substitute products or services. The idea being the weaker these forces have on the industry the more attractive the industry is moving forward and

probability of succeeding in the future. This model also lets the industry know what positions, for example economical or sustainability, are most attractive for them to move forward.

Crossrail, being a high speed rail, the biggest threat of substitute facing them would be private transportation, including personal car, personal bicycle, or walking. Crossrail is privately owned by Transport for London (TfL), The services TfL operates include London Underground, London Buses, Docklands Light Railway, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line (Matters, 2017), where Crossrail would fit into the list as the Elizabeth line. Because TfL provides all of these services the main type of transportation missing is private transportation. Travel in London Report 9 states that in the year 2000, of the trips made 47% were of private transport, 28% were of public transport, and 24% of walking. In 2015, however, the numbers changed a little in that out of the 26.7 million trips made that year 36% were private transport, and 37% for public transport (Transport for London, 2016). The walking percentage stayed the same. This statistic alone shows that people of London are choosing to take public transportation over private transportation more often. A few factors could contribute to this change in choice, The increase in population contributing to congestion on the streets, congestion charges issued by the city, environmental reasons, etc.

The next threat of substitute for Crossrail is Uber. Uber is a taxi like service offered through an app, it connects drivers with travelers directly. This app claims to be reliable, safe, and inexpensive way to get “on-demand rides” (HuffPost UK, 2017). Meanwhile, TfL has labeled Uber, as unfit to run a service and did not renew their

licence to operate in London just this September. Uber has made a statement saying they are “determined to make things right” (BBC News, 2017), though, London’s mayor has made it clear that this could take a few years to overcome. Even though Uber is not in operation currently in London, this company is present in 82 countries around the world (Uber.com, 2017), they claim to help cities thrive, and provide safe journeys for everyone; this company is strong and successful and doesn’t seem to be going anywhere. Uber can easily be a threat of substitute in the future and should be on Crossrails radar moving forward. Having Uber inoperable in London gives crossrail an advantage to learn from them, and maybe take some notes regarding Uber’s use of technology and staying current.

Customer bargaining power looks at whether the customer has the power to choose different products or choose which companies they give their money to. When looking at Crossrail’s customer buying power a few things need to be considered, the concentration of customers, purchase in volumes, non-differentiated products, substitute products and the level of importance the product has to the customer (Ortega, Jalon and Menendez, 2013). The method of purchase for Crossrail will fall into the exact process of the rest of London’s public transport, seeing as Crossrail will be sharing stations with the existing tube throughout London. Payment options for customers currently include paying by contactless, buying an oyster card, buying daily, weekly, monthly passes, or paying for each journey individually (Matters, 2017). Having all of these options you would think that customers have some power in what they buy, but this is not really the case, the contactless an oyster cards are the best deal for the customer.

When looking at the threat of new entrants things to consider is the size of the market and the existing products and what they have to offer. Crossrail is a unique product in that it is a high-speed rail that runs over and under ground, it travels directly west to east through central London cutting travel times significantly. For example, taking a trip from Canary Wharf to Heathrow currently takes 55 minutes, with Crossrail the same journey is expected to take 39 minutes. A journey from Paddington to Tottenham Court Road currently takes 20 minutes with Crossrail the same journey is four minutes (Evening Standard, 2017). Crossrail is guaranteeing future customers that journey times will be remarkably faster. Out of the 40 Crossrail stations 10 are being built, with these new stations a 'step-free' from platform to street is being promised (Crossrail, 2017). This aspect is not only convenient but also completely wheelchair accessible. Crossrail is also expecting to increase the central London rail capacity by 10%. Even without considering the funds, or the legalities it would take to develop a product that matches and exceeds the service that Crossrail brings, Crossrail sets the bar high. There is no physical room for another high-speed train to be built under or above central London that could provide a service better or even equal to that of Crossrail.

Crossrail hired Bombardier to build and maintain 65 new trains as well as a depot at Old Oak Common (Crossrail, 2017), making Bombardier possibly Crossrail's biggest supplier. According to the Office of Rail and Road (ORR), there are four companies that are builder of passenger trains for the British market (Orr.gov.uk, 2017). Four is not a large number, but considering these passenger train builders only cater to the British market this number doesn't seem like a small number either. Consider as well that they are building passenger trains, which have a lifespan of at

least 10 years one can assume, with the number of contracts they get within the British market, four seems like a large number to sustain the whole of the British market. If Crossrail only had one or two options for train suppliers the power that the supplier holds would be great. Although, this doesn't look like the case having multiple suppliers to choose from, and offering a sizeable job that would be continuous, Crossrail holds most of the power.

Crossrail's existing competitors are not the easiest to point out. Crossrail will be operated by TfL, TfL operates all of the public transportation within London, including underground, rail, buses, taxis, bicycles, etc. All of these services can be accessed by purchasing a fare with TfL, this could involve using contactless, an oyster card, or paying a fare at the location of these services. TfL has the monopoly of public transport, that Crossrail is without existing competitors within the public transport industry. Crossrail's competitors would be the same as TfL's competitors which would be the threats of substitute mentioned earlier. Private transport, walking, and potentially Uber would be the biggest threats to Crossrail and TfL. Although, statistics have shown that the percentage of people choosing private transport over public transport is continuously decreasing. Because Crossrail has so much to offer, reducing congestion, quicker travel times etc. there is little chance that Crossrail will not succeed. Keeping in mind that the population will continue to grow, public transport will follow; not using public transport as a preference but because there is no other option (Ortega, Jalon and Menendez, 2013).

The second model I chose when looking at Crossrail is VRIO (Value, Rareness, Imitability, Organization). This model was developed by Jay B. Barney in 1997, it is a

tool used to analyze a business's resources and capabilities to justify that this business can be sustainable as well as having a competitive advantage (Anon, 2017).

The first aspect of this analysis is Value, what value does Crossrail deliver to the customer? A large valuable resource that crossrail delivers to the customers are the trains itself. These trains are high-speed, getting the customers to their destination quicker than using the existing underground trains. The capacity for the trains is up to 1,500 persons, they are also air-conditioned, wi-fi is available and it is energy efficient, using 30% less energy (Crossrail, 2017). The trains are also fully accessible for wheelchair users, these aspects provide a more valuable service to each customer that they did not have access to before traveling by the underground. Another valuable resource is that Crossrail is managed by TfL, giving crossrail connections with the existing underground as well as the national rail. Crossrail and the underground, as well as the bus system above ground, will share not only platforms and stations but the same payment method. Crossrail will be sharing multiple stations with the underground which gives the customer the ability to use their contactless or Oyster card to access the new Crossrail, Elizabeth line.

Continuing on to the Rareness of the analysis, Crossrail is arguably a very rare product. Although you can find a high-speed rail in many different countries around the world, Japan, France, China, Spain, etc (Goeuro.co.uk, 2017). Crossrail is a rare product within the city of London. Because London's underground, being the world's first underground, has been around since 1863 (Matters, 2017), there was a lot of obstacles for Crossrail to establish its track below central London. The London Underground has 11 lines that run beneath London with 270 stations (Matters, 2017), Crossrail needed to weave through this to create its way directly through central

London. The rarity of Crossrail is also the quick journey times, even if you were to drive through London chances are, with the amount of traffic among London streets, Crossrail will be the fastest mode of transportation to travel with getting through London.

Inimitability, the next aspect of the analysis, considers the threat of competitors being able to imitate the product. Crossrail is a £14 billion project that is still in the process of being completed. With this statistic alone the ability to imitate this project would be very low. Crossrail also had a difficult time planning and creating their course that will run underneath London, to add another product that does the same if not performs more superior and quicker is near impossible. Another challenge to overcome if planning on imitating the Crossrail is not only the speed but the ability that Crossrail is able share and build on to existing underground stations. This gives customers the ease of transferring from one train to the next.

The last factor to look into for this analysis is Organizational support. The fact that Crossrail is in operation under TfL, gives the new high-speed rail a few existing procedures. For example the payment method, Crossrail has not developed a new payment method, it has jumped into the same method as the Underground tubes. This is a great advantage for Crossrail in that there doesn't need to be extra time spent on developing a payment method or purchasing new equipment for the ticketing process. New ticketing machines need to be purchased for the 10 new Crossrail stations but they are the same machines as the existing ones in the stations currently.

I chose to look into the Dominion Theatre on Tottenham Court Road, and how the the new high-speed Crossrail will potentially affect this business. The Dominion Theatre is located 268-269 Tottenham Court Road and it sits on the adjacent corner of

the existing Tottenham Court Road Underground station, where the Crossrail will soon make its stops. The Dominion Theatre was built in 1929, it was refurbished in 2014 returning it to a 1920s look and back to being known as one of West End's finest (Nederlander.co.uk, 2017). The Dominion is home to the Oscar winning musical An American in Paris, and has received 28 five star reviews when it opened in March this year (London Theatre 1, 2017). With the Crossrail station being present just across the street from Dominion, the Dominion will be exposed to significantly more people, tourists and locals. The Dominion presents shows multiple times a week and crossrail will be able to bring their guests to them quicker, easier, and improve their experience even more.

Crossrail is a huge product that is costing £14 billion, and it is expected to contribute £42 billion to the UK economy. There is no doubt that Crossrail is going to be a success, reducing congestion, aiding the tourism economy, getting more tourists around London easier and quicker, but how long until this Crossrail is not enough to accommodate everyone in London. There is already talk and plans for Crossrail 2. When Crossrail 2 is in the midsts of being built is there going to be plans for a Crossrail 3?

References

Anon, (2017). [online] Available at: <https://www.linkedin.com/pulse/vrio-framework-enrique-bernal> [Accessed 22 Nov. 2017].

BBC News. (2017). *Uber licence appeal 'could take years'*. [online] Available at: <http://www.bbc.co.uk/news/uk-england-london-42012719> [Accessed 22 Nov. 2017].

Crossrail. (2017). *Contract signed for Bombardier to deliver Crossrail rolling stock and depot*. [online] Available at: <http://www.crossrail.co.uk/news/articles/contract-signed-for-bombardier-to-deliver-cross-rail-rolling-stock-and-depot-contract> [Accessed 22 Nov. 2017].

Crossrail. (2017). *Crossrail in numbers*. [online] Available at: <http://www.crossrail.co.uk/news/crossrail-in-numbers> [Accessed 22 Nov. 2017].

Crossrail. (2017). *Over 200 metres long, providing space for up to 1,500 passengers*. [online] Available at: <http://www.crossrail.co.uk/route/new-trains/> [Accessed 22 Nov. 2017].

Evening Standard. (2017). *First Elizabeth line trains as Crossrail stage one launches next month*. [online] Available at: <https://www.standard.co.uk/news/transport/elizabeth-line-everything-you-need-to-know-about-crossrail-ahead-of-the-first-trains-running-in-may-a3526906.html> [Accessed 22 Nov. 2017].

Goeuro.co.uk. (2017). *Global High-Speed Rail Ranking | GoEuro*. [online] Available at: <https://www.goeuro.co.uk/trains/high-speed> [Accessed 22 Nov. 2017].

HuffPost UK. (2017). *So What Actually Is 'Uber' Anyway?*. [online] Available at: http://www.huffingtonpost.co.uk/2014/06/11/what-is-uber_n_5483290.html [Accessed 22 Nov. 2017].

London Theatre 1. (2017). *Dominion Theatre: home to An American In Paris completes £6m....* [online] Available at: <https://www.londontheatre1.com/news/179442/dominion-theatre-home-to-an-american-in-paris-completes-6m-refurbishment/> [Accessed 22 Nov. 2017].

Matters, T. (2017). *A brief history of the Underground*. [online] Transport for London. Available at: <https://tfl.gov.uk/corporate/about-tfl/culture-and-heritage/londons-transport-a-history/london-underground/a-brief-history-of-the-underground> [Accessed 22 Nov. 2017].

Matters, T. (2017). *Fares & payments*. [online] Transport for London. Available at: <https://tfl.gov.uk/fares-and-payments/> [Accessed 22 Nov. 2017].

Matters, T. (2017). *London Underground*. [online] Transport for London. Available at: <https://tfl.gov.uk/corporate/about-tfl/what-we-do/london-underground> [Accessed 22 Nov. 2017].

Matters, T. (2017). *What we do*. [online] Transport for London. Available at: <https://tfl.gov.uk/corporate/about-tfl/what-we-do?intcmp=2582> [Accessed 22 Nov. 2017].

Nederlander.co.uk. (2017). *Nederlander Theatres - About us*. [online] Available at: <https://www.nederlander.co.uk/dominion-theatre/about-us-dominion-theatre> [Accessed 22 Nov. 2017].

Orr.gov.uk. (2017). *Rolling stock companies | Office of Rail and Road*. [online] Available at: <http://orr.gov.uk/about-orr/who-we-work-with/industry-organisations/rolling-stock-companies> [Accessed 22 Nov. 2017].

Ortega, A., Jalon, M. and Menendez, J. (2013). A strategic analysis of collective urban transport in Spain using the Five Forces Model. *Investigaciones Europeas*, [online] pp.5-14. Available at: <http://dx.doi.org/10.1016/j.iedee.2013.05.002> [Accessed 22 Nov. 2017].

Thesun.co.uk. (2017). *When will the Elizabeth Line open, where will the Crossrail go and where will the new trains run?*. [online] Available at: <https://www.thesun.co.uk/living/1924011/elizabeth-line-crossrail-project-new-trains-route/> [Accessed 22 Nov. 2017].

Transport for London (2016). *Travel in London Report 9*. London: Transport for London, p.8.

Uber.com. (2017). *Uber Country and Language List*. [online] Available at: <https://www.uber.com/en-GB/country-list/> [Accessed 22 Nov. 2017].