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**Infocomm Sales and Marketing**

Year 2/3 (2024), Semester 3/5

## SCHOOL OF INFOCOMM TECHNOLOGY

Diploma in Data Science

Diploma in Information Technology

**ASSIGNMENT I  
Individual**

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| --- | --- | --- |
| **Deadline:** | **Softcopy** | **9 June 2024 @ 2359 hrs** |

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| --- | --- |
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| **Tutorial Group:** | T02 |
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**Penalty for late submission:**

* 10% of the marks will be deducted for every day (inclusive of Saturdays, Sundays, and Public Holidays) after the deadline.
* **NO** submission will be accepted after 19 June 2024, @ 2359hrs

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# 1. Introduction of the Company: Babylon Health

Babylon Health is a digital-first health service provider that combined an artificial intelligence-powered platform to connect with patients via virtual clinical platforms. The company’s business model is a subscription based one, where patients must pay a recurring price monthly for access to health care professionals through their website and their mobile application: Babylon. To further elaborate on the app, users who have questions or photos can send them to the company’s team of health care professionals, ranging from doctors, nurses and therapists. They can also go for teleconsultations in the app with a clinician to answer questions about common medical conditions like fever, sore throat and allergies.

Through this application, they can also receive referrals to other health specialists. They first launched this business model in the United Kingdom in 2013, from then onwards they have expanded internationally to 17 countries. To name a few, Malaysia, Singapore, Laos, United States. In 2019, Babylon Health has helped over 20 million people as well providing over 5000 consultations a day. According to a press release by Babylon Health, its mission statement is to “put an accessible and affordable health service in the hands of every person on Earth”. Their mobile App, Babylon health is embedded into Samsung Health, and they have even signed major partnerships with Tencent, an internet technology company, Bupa and Prudential, 2 health insurance companies originated in the United Kingdom and London respectively.

# 2. Environmental Analysis

# 2.1 Political

The political factors that affect the digital healthcare industry are National Policies, government initiatives and taxes that are exclusive to them.

**National Policies:** Each country has its own regulations for digital healthcare companies, including important data privacy laws like the General Data Protection Regulation (GDPR) in Europe, the Health Insurance Portability and Accountability Act (HIPAA) in the USA, and the Personal Data Protection Act in Singapore. Compliance with these regulations is essential for digital healthcare companies operating internationally.

**Government Initiatives**: Governments are increasingly investing in digital healthcare initiatives to enhance delivery and access. For example, during the COVID-19 pandemic, the US Department of Health and Human Services (HHS) funded nearly $55 million to 29 health centers to improve healthcare access and quality for underserved populations through virtual care, including telehealth, remote patient monitoring, digital patient tools, and health information technology platforms (US Department of Health and Human Services, February 14, 2022). Similarly, the Canadian government invested over $28 million to expand virtual healthcare services in Quebec, with a total of $240.5 million to increase access to virtual services and digital tools for supporting Canadians' health and well-being (Government of Canada, December 16, 2021).

**Digital Service Taxes:** Digital healthcare companies must also be aware of digital service taxes introduced by several countries, including France, Italy and the UK. Compliance with these tax regulations is necessary for companies operating in these regions. (Bipartisan Policy Center, October 26, 2023) These taxes could potentially affect the profitability and market share of companies.

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# 2.2 Economic

The economic factors that affect companies operating in the digital healthcare industry are inflation rate and economic growth.

**Inflation Rate:** According to the 2024 Global Medical Trends Report by Assurances et Conseils Moncey, inflation rates in most countries have decreased from 2022 to 2024. This reduction in inflation rates suggests a potential easing of general price increases. Although this can potentially lead to lower costs for medical services, it does not guarantee a decrease in medical costs, as these are also influenced by other factors like demand for healthcare services. However, if the costs of medical services do decrease, it could increase accessibility for people to healthcare services, including telehealth. With lower operating costs, Babylon Health can potentially invest more in technological innovations and improve their service quality, further enhancing their competitive edge in the digital healthcare industry.

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**Economic Growth:** The market share of digital healthcare companies, including Babylon Health, is influenced by the economic conditions in the countries where they offer their services. If the economies of these countries are not performing well, such as low Gross Domestic Product (GDP) growth, it is likely that the market share for the company operating in those regions will be lower. Economic downturns can reduce customer spending on digital healthcare services, limiting the resources available for companies to invest in new technologies and infrastructure. On the other hand, strong economic growth can enhance market potential by increasing customer spending capacity and encouraging investment in digital health innovations. For instance, in **2.3 Socio-Cultural,** the US digital healthcare market is expanding every year, which correlates to the GDP for the US as well (Statista, n.d.). This proves that the GDP has a positive relationship with the performance of the digital healthcare market.

A graph of a number of blue and black bars

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Expected Annual GDP for US (2024- 2034)

# 2.3 Social

**Acceptance of digital health services:** Trends have shown a growing acceptance and reliance on digital health solutions, with people becoming more inclined to use AI-driven healthcare services. To support this, it is shown that the Digital Health market in the US is estimated to have a Compound Annual Growth Rate (CAGR) of 19.5% from 2020 to 2030 (GRAND VIEW RESEARCH, n.d.). Not only that, China’s digital health market is also anticipated to experience a CAGR of 11.74% from 2024 to 2028. (Statista, n.d.).

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Predicted U. S’s annual growth in digital health market

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Predicted China’s annual growth rate in digital health market

**Digital literacy:** The increase in digital literacy plays a significant role in the adoption of digital health services. More people are becoming knowledgeable about how to utilize technology. According to the Digital 2023 Global Over Report, internet adoption rates are increasing, with over two-thirds of the world’s population using mobile phones in early 2023. This indicates how significant a rise in digital literacy there is as more individuals gain access to and learn how to use digital tools effectively. Furthermore, various initiatives and programs are being implemented globally to boost digital literacy. For instance, the World Bank’s Digital Development Global Practice, one of the world’s largest sources of funding and knowledge for developing countries, works with governments in developing countries to build the foundations for digital transformation. This includes promoting inclusivity for more people to access fast, reliable, safe and affordable internet.

Hence, the increase in global digital literacy has directly impacted the adoption of digital healthcare solutions. As more people become educated on using mobile phones and other devices, they are more likely to come across digital health services like those offered by Babylon Health. The rising number of internet users as well as growing familiarity with digital platforms facilitate easier access to AI-driven healthcare services, expanding Babylon Health’s potential user base and market share.

# 2.4 Technological

**Technological Advancements and Adoption**: Currently, there are rapid advancements in AI and mobile health technology. AI-driven diagnostics are becoming more refined, enabling more accurate and personalized healthcare solutions digitally. During and after the COVID-19 pandemic, telehealth platforms have expanded significantly, offering remote consultations and monitoring, which is what Babylon Health’s services are. In an article by the National Library of Medicine, one of their cases stated that a hospital in China’s Guangdong province “used an existing platform to launch COVID 19 responsive services. These included information hubs, e-Consultation and screening, remote symptom monitoring, and psychological support”. The hospital reported that they “saw a drastic drop in outpatient visits during the pandemic lockdowns but recorded high usage of the online services even at the height of the pandemic”. In the same article, they talked about similar cases that happened in Kenya and Ethiopia, showcasing the increase in adoption of digital health tools.

**Government spending on Technological research:** Governments around the world have significantly increased their investment in AI companies within the healthcare sector. According to McKinsey & Company (March 2020), there has been a notable rise in government spending on AI healthcare companies since 2015. In the United States, Europe, and Asia, investment funds for AI healthcare companies have grown by 5 times, 22 times and 28 times respectively, between 2015 and 2019. This surge in funding showcases how much of an importantance governments place in the growth and potential of AI in revolutionizing healthcare delivery.

A graph of a growing graph

Description automatically generated with medium confidence

Technological advancements are integral to Babylon Health’s growth. By leveraging significant investments, focusing on its research and development, and addressing cybersecurity challenges, Babylon Health can take advantage of the evolving digital health landscape. To sustain its competitive advantage and even expand its market share, they would have to continuously innovate their AI-driven services as well as adapting to new emerging technologies in the future.

# 3. Situational Analysis – Industry

# 3.1 Michael Porter’s 5 Forces Model

**3.1.1 Threats of New Entrants (Low)**

The threat of new entrants into the healthcare industry is low. According to an article by Startup Talky (June 22, 2023), it was stated that “The digital healthcare startup failure rate is 98%” and “51% of digital healthcare startups fail within the first 2 years of launching”, this shows just how competitive the digital healthcare industry is such that is prevents most start-ups from having the chance to blossom. This is partially because start-ups require a lot of capital investment, including paying the doctors and nurses high salaries. Not only that, comprehensive telemedicine systems, which have multiple different hardware comprised in it for different diagnosis, can cost up to $30000 USD. Other examples include requiring developing databases system that can protect the privacy of their customers, it would require thousands of expert man-hours as well. The UK government enforces strict rules and regulations regarding the use of data in digital health. One such example is the Consumer Protection Act established in 1987, which imposes a strict regime for medical devices, hence maintaining data security is crucial and may pose a large obstacle for startups to overcome.

Furthermore, the amount of technological expertise required to create advanced solutions like AI chatbots is another significant entry, developing an AI chatbot requires complex Artificial Intelligence and Natural Language Processing technologies, which require extending funding for research and development. Prominent companies in the digital healthcare industry have already invested heavily in research and development, gaining a head start that poses a large obstacle for startups trying to enter this market.

To add on, there are already several prominent digital health companies in the UK, examples include not only Babylon Health, but also Teladoc, Philips Healthcare, Cera, Huma and Lumeon. All these digital health companies have already established a brand and reputation, they already have access to important distribution channels and the ability to retaliate against those start-ups in terms of economies of scale. Large digital Healthcare companies such as Philips Healthcare benefit from bulk purchasing of materials and components, lowering their production costs compared to startups that cannot achieve such economies of scale.

Hence there is a high barrier of entry for newcomers. But it is worth noting that some start-ups have successfully risen in the competitive digital healthcare landscape. One such example is Tyto Care, which offers a similar service to that of Babylon Health. They offer telehealth services powered by artificial intelligence, enabling patients to complete medical examinations and diagnoses. Tyto Care’ growth had peaked in 2020 and achieved more financial milestones in 2021 with a $50 million investment round according to an article by PR Newswire (4 March 2021).

**3.1.2 Supplier’s Power (High)**

Digital healthcare companies such as Babylon Health heavily rely on advanced technologies, often provided by specialized suppliers. Babylon Health’s AI chatbot heavily relies on using AI and Natural Language Processing (NLP) technologies to offer healthcare services, requiring collaboration with technology providers skilled in AI and NLP. Providers include IBM Watson Health, Google Cloud AI and Microsoft Azure. Microsoft Azure and Google Cloud AI are specialized in Artificial Intelligence and Natural Language Processing. Google cloud AI and Microsoft Azure give digital healthcare companies the necessary structure to support scalability and efficiency, which is indispensable to companies that are in the digital healthcare industry like Babylon Health. While IBM, otherwise known as the International Business Machine Corporation, that provides IT solutions, is helping in a different way, they use advanced machine learning algorithms to analyze large amounts of datasets that make predictions on what steps are necessary for a patient.

This information is valuable to digital healthcare companies to ensure that their AI chatbot provides accurate information to its users. Hence, suppliers have a large amount of bargaining power on digital healthcare companies, as there are only so few specialized in the field of AI and NLP technology, this dominance market position of Google, Microsoft and IBM gives them leverage over digital health companies, making it challenging for the companies to negotiate deals to switch suppliers without heavy consequences. If these suppliers decide to increase their prices, digital healthcare companies may face substantially higher costs, reducing profit margins. Hence Supplier’s power is high.

**3.1.3 Buyer’s Power (High)**

Consumers have numerous choices in the digital healthcare industry, there are many substitutes for companies other than Babylon Health. Examples include Teladoc Health, HealthTap and Ada Health. These companies all use AI as a form of symptom assessment tool, diagnosing patients ‘medical conditions as well as suggesting forms of treatment. Thus, there is a high buyer power in the industry as users can easily switch from using one digital healthcare provider to another. In an article by Practice Builders (27 December 2023), it was stated that “Patients increasingly turn to non-traditional care settings and digital channels for self-diagnosis”. This emphasizes the importance of personalized experience that increases consumer expectations and hence buyer power.

In the case of Babylon Health, their Babylon mobile app has a monthly subscription as its business model. If people are not satisfied with the service the apps provide or the quality and innovation of other companies are better, they can easily cancel future subscriptions and move on to the substitutes mentioned above. Hence there is low switching cost. As consumers can gain easier access to information, they can make informed decisions with some research, enhancing their bargaining power in the industry.

In a recent article by McKinsey & Company (April 15, 2024), In the section “Trend 3: Consumers are actively shopping and making trade-offs”, it was stated that “44 percent of healthcare consumers research providers before making an appointment” and “consumers who research providers then look at two to three providers before making an decision”. While this is not directly related to digital healthcare, it still indicates how much consumers value high-quality healthcare organizations and often make comparisons among companies that offer the same or similar services. This access to information enhances consumer power, allowing them to make well-informed decisions.

**3.1.4 Threat of Substitutes (High)**

While there are many substitutes in the digital healthcare industry, the threat they pose is moderate. Competitors like Teladoc Health, Push Doctor and Ada Health all provide similar AI-driven health services. However, the quality and reliability of these substitutes vary. Companies that are established like Babylon Health can retain customer loyalty due to their strong reputation. Innovations in AI and machine learning coupled with high consumer trust in these brands, act as deterrents to switching. However, the competitive rivalry in the industry is intense, with consumers having a multitude of options for digital healthcare services. This availability of alternatives increases the threat of substitution, meaning that customers can easily find a more attractive or innovative service that is to their liking, thus making threat of substitutes high.

**3.1.5 Competitive Rivalry (High)**

From a report by RESEARCH AND MARKETS (February 2024), the global digital health market size has been experiencing significant growth, with estimations at 296.46 billion USD in 2024, projecting to reach 655.57 billion by 2029. In a span of mere 5 years, the market size has more than doubled. As the market size increases, there will naturally be more companies that want to get a slice of cake. So, the degree of rivalry among existing competitors in the digital healthcare industry is high, with companies constantly trying to come up with innovative ideas to gain an edge over their competitors. For example, Jivi AI, a Gurugram-based healthcare startup specializing in artificial intelligence, secured the top spot on the Open Medical Large Language Model Leaderboard based on an article by DIGITAL HEALTH TECHNOLOGY (3 June 2024), even ahead of OpenAI’s GPT-4 and Google’s Med-PaLM 2, Med-paLM 2 is a language model made by Google to provide high quality answers to medical questions, operating similar to that of Babylon Health’s AI chatbot. With an expanding market size, more companies in the digital healthcare industry would surely be wanting to gain a competitive position, by continuously innovating upon their own products.

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# 3.2 Industry Life Cycle-Digital Healthcare

The digital healthcare industry is currently in the growth stage of its industry life cycle. The global digital healthcare market is projected to grow from USD 296.46 billion in 2024 to USD 655.57 billion by 2029 as previously mentioned in 3.1.4 Competitive Rivalry, the report also stated that there is a compound annual growth rate of approximately 17.2%. The projected increase in market size shows the characteristic of the growth stage where the digital healthcare industry is seeing accelerating revenue growth and high potential profits.

Not only that, but new entrants like Jivi AI also successfully established themselves into the digital healthcare industry, showcasing that there is currently no market saturation that leads to the exit of the weaker firms and that the market is still open to new innovations and players.

In terms of consolidation, the digital health market is still undergoing continuous innovation, with significant investment going into research and development, such as trying to develop more accurate AI, machine learning algorithms to drive the industry forward. These technologies are continuously being integrated as part of digital healthcare solutions.

Consumer trends also support the growth stage, with increasing adoption of digital health solutions driven by greater internet access and proliferation of smartphones. As previously mentioned in 2.3 Social, the demand for convenient and efficient healthcare solutions is quickly rising after the COVID-19 pandemic, accelerating the adoption of digital healthcare solutions.

Due to the digital healthcare market’s rapid expansion, high revenue growth, increasing consumer adoption and continuous innovation, it indicates that it is not yet in the mature or shakeout stages. All these reflect that the digital healthcare industry is firmly positioned in the growth stage, reflecting its dynamic and expanding nature.

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# 4 Situation Analysis – Babylon Health

# 4.1 Value Chain Analysis - Babylon Health

**Inbound Logistics**

Babylon Health collaborates with health organizations to enhance its service offerings and streamline its inbound logistics. For example, Babylon Health partnered with Mount Sinai Health Partners (MSHP), the largest hospital network in New York City, to launch an AI-based app in 2020 according to FIERCE Healthcare (5 May 2020). Additionally, Babylon Health’s partnership with the UK’s National Health Service (NHS) in 2017 led to the creation of GP at Hand, an app that offers quick General Practice (GP) appointments via smartphones. These collaborations highlight Babylon Health’s strategy of forming alliance with health providers and organizations to strengthen its inbound logistics.

Through these apps, Babylon Health collects extensive patient data, which is used to continuously train and refine its AI algorithms, thereby improving their accuracy. According to NS Medical Devices (June 2024, 2019), Babylon Health “leverages AI to deliver a triage system to reduce the time that patients wait for an appointment and have access to instant medical information”. This triage system assesses initial patient symptoms to determine the appropriate care pathway. Hence, Babylon Health effectively enhances its inbound logistics, by focusing on strategic partnerships and data collection, delivering exceptional service quality in digital healthcare and a continuous improvement in operational efficiency.

**Operations**

Babylon Health’s core service, which is the AI chatbot for diagnoses, heavily relies on AI technology. Their main team comprises of engineers and data scientists to develop and maintain AI algorithms that power their virtual consultations and symptom checker tools. As previously mentioned, the AI system uses NLP to understand patient queries and provide relevant medical advice. Babylon Health also integrates extensive medical databases to support their AI-driven services. Such actions include accessing and updating medical knowledge of the AI, patient records, and diagnostic criteria. These continuous improvements and updates to these algorithms are essential to maintain accuracy and reliability of the AI.

Not only that, but Babylon health also has a team of cybersecurity engineers that maintain the integrity and confidentiality of patient data, using advanced encryption methods and adhering to data protection laws like the General Data Protection Regulation (GDPR). So, most of Babylon Health’s operations is to update their AI services and maintain data security of its users

Babylon Health’s mobile app are also critical components of their operations. They have a team of User interface and User experience designers to create the app such that users can easily navigate through it. Regular updates and testing are conducted to improve the user experience and incorporate feedback from users.

**Outbound Logistics**

Since Babylon Health’s services are primarily online, the focus is on the seamless delivery of these services through digital platforms, ensuring people can easily access. Babylon Health makes its mobile app available on major platforms like Ios and Android. To maintain service availability, Babylon Health provides multiple channels for customer support, including in-app chat, email and phone, to assist users with various issues such as technical problems, appointment scheduling and general questions. This setup is designed to ensure that users have access to support when needed.

**Marketing & Sales**

Babylon Health has a comprehensive marketing and sales strategy to promote their digital healthcare services to reach customers. Their digital marketing efforts include content marketing and social media campaigns on platforms like having their own YouTube channel and Instagram account. These channels help them engage directly with users, providing educational content, updates on new features and health tips, driving up user engagement and brand loyalty. Not only that, as previously mentioned in Inbound Logistics, the partnerships with health providers and organizations have enhanced their credibility and visibility among potential users, leveraging the reach of the National Health Service to attract a broad user base due to the NHS’s established reputation and extensive network. Furthermore, Babylon Health has implemented a variety of pricing models to cater to different customer needs and preferences. In the app, users can either pay monthly or annually for unlimited consultation. Or pay for an individual appointment. This flexible pricing strategy allows people from diverse economic backgrounds to be able to use their app, enhancing user retention.

**Services**

Babylon Health leverages advanced AI-driven services to deliver exceptional healthcare solutions, revolutionizing the way patients access medical care. Their AI-powered platform has a range of features that aim to improve health outcomes of its user. The main service that stands out is the AI-based symptom checker, which uses a mix of AI and NLP algorithms to analyze user inputs and provide personalized health assessment and recommendations. This tool helps patients understand their symptoms and guides them on what is the next step for them to take, such as recommending them to book a consultation with real healthcare professionals. According to NS Medical Devices, this approach has significantly reduced waiting times and improved patient satisfaction. They also have a Care Team that people can call to offer customer support.

# 4.2 SWOT Analysis- Babylon Health

**Strengths**

**Advanced AI Technology**

While there are other digital healthcare providers that offers integrated AI solutions in digital healthcare like Teladoc and Ada Health, Babylon Health’s strength is specifically attributed to the integration of their AI capabilities into a single platform. Not only providing personalized health assessments and recommendations but also integrates various services such as symptom checkers, and continuous AI learning from patients, which will enhance healthcare accessibility and efficiency. This comprehensive integration sets it apart from competitors who might only excel in individual aspects of AI technology.

**Strong Partnerships**

Babylon Health has established numerous partnerships with other healthcare providers, examples include Mount Sinai Health Partners & National Health Service. These partnerships enable collaborative innovation, expand its reach in the digital healthcare industry and enhance the quality of Babylon Health’s services.

**Early Adoption and Development of AI**

Babylon Health is known for its pioneering use of AI and NLP technologies in healthcare. It had begun operations in 2013 and focused on integrating AI technology early on, gaining public recognition by 2016 where it had raised funding of $25 million to enhance its AI capabilities. In 2019, they released their AI platform. This is earlier than other digital healthcare providers like Teladoc Health where they had only started partnering with Microsoft in 2023 to enhance their AI capabilities (Teladoc Health, 18 July 2023)

**Weakness**

**Low global presence**

Compared to other companies like Teladoc Health, where it operates in 175 countries (World Economic Forum), Babylon Health only operates in 17 countries. This constraint can impact its market share and growth opportunities, especially in countries where digital healthcare demand is on the rise. This limited global footprint for Babylon Health means that they might struggle to compete with established players in countries where it lacks presence, resulting in missed opportunities for partnerships, customer base, and market expansion.

**Regulatory and legal hurdles**

Babylon Health faces stringent healthcare regulations. As previously mentioned in the PEST Analysis. For instance, in 2017, the Care Quality Commission raised doubts in the report about the safety and efficacy of Babylon’s services (Barr Media, November 2023), sparking a legal threat from CQC. Additionally, in 2020, Babylon Health has had a significant data breach within its GP at Hand app, users had the ability to look at other peoples’ video consultations freely. This incident showcases the regulatory and legal difficulties Babylon Health must deal with to protect its reputation and abide by regulations.

**Inadequate adaptation of technology to meet complex healthcare needs**

While Babylon Health’s AI technology is advanced, it struggled to adapt to the complex healthcare needs of the U.S. market. According to senior analyst Alex-Lennox-Miller, Babylon Health initially targeted a relatively healthy population. But in the U.S, where their people are frequently sicker than normal and not healthier. The people in the U.S have serious needs that the people in the UK did not have, the company’s technology was not adequately developed to handle these more demanding healthcare needs in other regions beside the UK.

**Brand Reputation Concerns**

While Babylon Health is known for its pioneering AI technology, its brand reputation has been impacted by legal challenges, such as the safety and efficacy of their services, and the fact that their app had went through a significant data breach in 2020, raising concerns about its reliability and trustworthiness in the market.

**High dependence on Suppliers**

As previously mentioned in Michael Porter’s 5 forces analysis, digital healthcare companies such as Babylon Health relies on a few key suppliers such as Google Cloud AI and Microsoft Azure for its technological infrastructure. This creates a vulnerability on Babylon Health where any disruptions to the suppliers or changes in terms of contracts could significantly impact Babylon Health.

**Opportunities**

**Increasing Adoption of Digital Health Tools**

As mentioned in the industry life cycle, the digital health market is experiencing rapid growth, driven by increasing acceptance and demand for digital health solutions. The global digital health market is expected to reach 655.57 billion USD by 2028 growing at CAGR of 17.2% during the forecast period (2024-2029) (RESEARCH AND MARKETS, February 2024). This presents a great opportunity for Babylon Health to capitalize on this trend, with the increasing demand for digital health tools, Babylon Health can position itself as one of the leading companies in the digital health market, leveraging its AI-driven platform to meet the growing needs of consumers.

**Artificial Intelligence in Healthcare**

Artificial intelligence possesses a massive potential in the digital healthcare industry, from improving diagnosis to personalizing patient care. Babylon Health can leverage this potential to become one of the leading players in this market, given their huge investment in R&D for AI and data analytics. Utilizing advanced AI algorithms to further enhance its speed and accuracy in detecting symptoms for patients. In addition, increasing the specificity of treatment plans, tailoring them to unique needs of each individual patient. By Improving patient outcomes and satisfaction, it will lead to Babylon Health gaining greater recognition globally.

**Expansion into Emerging Markets**

The growing digital health demand in emerging markets presents an opportunity for Babylon Health. Countries in Africa are experiencing significant increase in smartphone usages, making digital healthcare services more accessible. For example, in South Africa, the MomConnect program launched by the National Department of Health in South Africa has demonstrated the power of digital healthcare in improving maternal health outcomes by providing pregnant women and new mothers with critical health information via phones. Right now, MomConnect has registered over 1.5 million users, highlighting the successful implementation and scaling of digital health initiatives in emerging markets.

Since programs like MomConnect have shown significant impact in countries with little healthcare, Babylon Health can partner with Health organizations and Non-governmental Organizations like the World Health Organization (WHO) and the Bill and Melinda Gates Foundation, Babylon Health can implement similar digital health solutions in developing countries. These partnerships can enhance healthcare accessibility in remote or rural areas, supporting Babylon Health’s mission statement “To put an accessible, affordable health service in the hands of every person on Earth”. This strategic expansion will not only address healthcare disparities, but also reduce Babylon Health’s weakness in having a low global presence in the digital healthcare market.

**Threats**

**Regulatory Changes**

As Babylon Health works in a highly regulated environment, changes in laws and regulations could increase operational costs, putting a strain on Babylon Health’s profit margin. There is a constant need for Babylon health to navigate through the varying regulations across different countries, adding complexity and risk to their global expansion efforts.

**Data breaches**

Babylon must continually upgrade its database such that its cybersecurity is impenetrable. Any mistakes, such as data breaches, can significantly impact its operations and profitability. The healthcare industry is particularly vulnerable to cyberattacks, with data breaches increasing in both impact and frequency over the years. In the last 5 years, there has been a staggering 256% rise in significant hacking-related breaches in the healthcare sector reported to the U.S. Department of Health and Human Services (HHS) (THE NATIONAL LAW REVIEW, June 5, 2024). As Babylon Health has already suffered a data breach in 2020, repeated compliance failures in securing patients’ information could potentially lead to the suspension of their operations, either by health regulators like the CQC, or cause a significant loss of public trust. If people lose confidence in Babylon Health’s ability to protect their private information, they may stop using its services, leading to financial losses.

**Intense Competition**

Babylon Health faces huge threats from intense competition in the digital healthcare market. With the evolving market for the digital healthcare sector, every healthcare company is fighting each other to get a portion of the market share. Competitors such as Teladoc Health and Ada Health are major players in this market with a substantial number of resources. If Babylon Health does not continuously innovate its product, it may lose its customer base to migrate towards its competitors.

**Economic downturns**

Economic downturns are a threat to companies across all sectors, including digital healthcare companies like Babylon Health. For example, the ongoing war between Russia and Ukraine has disrupted global supply chains, leading to increased production costs and economic instability (Economics Observatory, October 24, 2023). This situation has resulted in higher operational costs and a reduction in investment funds for Babylon Health. The financial strain caused by rising costs and decreased investment hinders Babylon Health’s ability to maintain its competitive edge in the market.

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# 5 Situation Analysis – Portfolio Analysis

**Introduction of Babylon Health’s AI-centric product**

Babylon 360 is Babylon Health’s comprehensive digital value-based care service. It is a mobile application that integrates AI-powered technology with medical expertise to offer highly accessible and affordable healthcare. This app incorporates the Babylon chatbot, first launched in Rwanda in 2018. The AI technology that is in Babylon 360 is a symptom checker that can provide users with information about possible conditions, recommending the next steps to take as well as connecting the user with a medical specialist if needed. This focus on early intervention care helps prevent conditions from escalating into serious health problems. In addition to its AI-driven feature, Babylon 360 offers 24/7 virtual consultations with medical professionals, ensuring continuous and comprehensive care.

# 5.1 BCG Model – Babylon 360 before Liquidation (Star)

As mentioned in the Industry Life Cycle, the digital healthcare market is rapidly expanding in terms of its potential market share due to growing demand for digital healthcare. So, in terms of market growth rate, it is high.

Babylon 360 was launched in the USA with the aim of being its primary target market. In June 2021, the CEO Ali Parsa stated that the US market has already made up more than 80% of Babylon Health’s revenue for that year so far. This shows that the release of Babylon 360 is a major success in the U.S market in terms of capturing a substantial market share. (NHS FOR SALE? May 2024).

With the factors taken into consideration, the global digital market is rapidly expanding, giving potential for those digital healthcare players to gain a substantial market share. Specifically on Babylon 360, it has shown to be a great product for Babylon Health to increase their bottom line, using the BCG model, it is concluded that Babylon 360 is a star.

# 5.2 Product Life Cycle – Babylon 360 before Liquidation (Growth)

Before Babylon Health liquidated in 2023, Babylon 360 was in the growth stage of its product life cycle. As Babylon 360 had successfully entered the U.S. market, generating over 80% of Babylon Health’s revenue for that year, showcasing how product had moved into a growth phase as its revenue starts climbing quickly.

In 2020 and 2021, the digital healthcare market has witnessed several new players, making the environment highly competitive. Some start-up companies include CureX, Hyfe and Novoic (PLUG AND PLAY, June 15, 2021). These new entrants present challenges for Babylon Health to maintain and grow their market share in this competitive landscape.

Additionally, established competitors like Teladoc health have created price pressures due to the increasing competition. In their infographic, they stated to have their services’ cost reduced by 33% for people with a Primary Care Plan, increasing accessibility to people from low social economic backgrounds. (Teladoc Health Primaery360 Infographic, 2023)

Given the substantial rise in revenue within a year, the emergence of new competitors in the digital health market, and increased competition from established digital health companies, Babylon 360 can be evaluated to be in the growth stage of the product life cycle.

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# 6. Factors that lead to Babylon Health’s downfall

Many of the factors that are analyzed in this report are referenced to a YouTube video titled “The Rise and Demise of Babylon Health”. The speaker, Dr Mustafa Sultan is a Physician and a Podcaster. This video was used as it had much content that points out valid reasons on why Babylon Health went bankrupt and liquidated in August 2023.

**Unable to accommodate to diverse range of conditions**

Babylon Health aimed to revolutionize primary healthcare by implementing AI to manage and assess patient conditions. But primary care is very complex with multiple layers of depth. In the section “Picking a problem that was too big”, Dr Sultan stated that “In Primary Care anything can come to the door, you can get somebody who’s pregnant with a complication of pregnancy, you can get somebody who’s having a really like self-limiting illness that will get better on its own, you’ve got someone with sepsis, you have a young or old person, you know someone with complex cancer with sleeping problems and lots of medication you have to tweak” . This shows that the variety of health issues patients can have, not just only having one but multiple health issues at a time makes it challenging for an AI to accurately diagnose and prioritize care.

**First Mover Disadvantage**

Babylon Health has faced challenges as an early entrant in the digital healthcare industry, the high initial costs and complexity of developing effective AI-based healthcare solutions were difficult to overcome. Dr Sultan states that “They couldn’t bridge that Chasm between creating the availability and that great service and delivering it in a more cost-effective technology driven way”. As a pioneer Babylon Health had to chart its own course in developing AI solutions that were effective, this came with two primary cost drivers: steep learning curve and the timing of market entry.

To begin with, the steep learning curve required a huge investment in resources, including hiring a large team of technical and clinical experts to build and refine their AI systems. Team that consists of product managers, clinicians, data scientists, data engineers and quality assurance specialists. This process involved extensive research and needs continuous effort to ensure accuracy and reliability of their AI, which was financially demanding of them. Secondly, being one of the first companies to dazzle in AI-driven healthcare, Babylon Health had no instructions or a set of frameworks to follow to create their AI.

As a result, Babylon Health struggled to deliver an AI solution that was cost-effective while maintaining high-quality care, ultimately outpacing their ability to generate revenue. Consequently, they developed an AI that could not cater to the full spectrum of patient conditions, serving only those with simpler, one layered issue, undermining their business model, putting a financial strain on Babylon Health and ultimately led to their downfall.

**Significant regulatory hurdles**

One of the factors that contributed to Babylon Health’s downfall was the fact that its use of AI in the healthcare industry is still a relatively new concept and is subject to strict regulations, it was even criticized for not adhering to these regulations. As mentioned previously, Babylon Health has had a data breach in its history of operations, further damaging its reputation, leading to some loss of trust among users, healthcare providers, and investors. This erosion of trust impacted Babylon Health’s ability to sustain its business, contributing to its bankruptcy and liquidation in August 2023.

# 7. Reflect on use of Gen AI tools

**i. Problem Identification**

Chosen question: In what stage is the digital healthcare industry at in the industry life cycle? Provide evidence to support your statement.

**ii. AI Tools Chosen**

OpenAI’s GPT- 3.5  
Microsoft Copilot

Google Gemini

**iii. Interaction**

A white text on a white background

Description automatically generated

Figure 1.0: Output by OpenAI GPT-3.5

**A screenshot of a computer

Description automatically generated**

Figure 1.1: Output by Microsoft Copilot

A screenshot of a computer

Description automatically generated

Figure 1.2: Output by Google Gemini

**Review of Outputs**

OpenAI GPT-3.5: Although there are a great number of statements provided, it only provided evidence for one point.

Microsoft Copilot: No evidence was provided for their statement on what stage the digital healthcare industry was in.

Google Gemini: No evidence was provided for their statement too. But the difference in the output for Gemini compared to GPT-3.5 and Copilot was that it provided a balance overview, stating that the digital healthcare industry is quite broad, ad that some companies may be at different stages, giving multiple perspectives.

After reviewing the outputs, GPT-3.5 was chosen despite its shortcomings. The decision was made since GPT-3.5’s output had some evidence, which was crucial for supporting the analysis. It was necessary to manually tweak the output to ensure it has substantial evidence to support the statement that the digital healthcare industry is in the growth cycle.

**iv. Reflection**

The main challenge was the lack of comprehensive evidence from the AI tools. To address this, the AI- generated content was supplemented with additional research to create an evidence-based analysis Through this process, I learned the importance of critically evaluating AI tool outputs, and how they do not always come up with the perfect answer. As seen when asking for evidence, they most of the time do not provide it. To ensure accuracy and reliability, AI tools will be used to supplement the solutions to some problems in the assignment in terms of paraphrasing and increasing coherency of my paragraphs. I would not consider it to use for analysis, as it may not have been updated recently. By helping to enhance the coherency, it indirectly enhances the quality of my analysis.

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