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Evaluation on Start-up Companies Based on POCD Framework: Case of Brightinsight

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ABSTRACT
In today's environment, deciding whether to invest in a business usually requires evaluating the market value of the business. For start-up companies, it is difficult to find an effective way to analyze the market value of a company and decide whether to invest. In this research, we propose a method called POCD framework, and we rely on this method to analyze startups. We select a company named Brightinsight as the evaluation object and conducted evaluations from the POCD framework that reveals three aspects: people, opportunities, and context. We demonstrate that the resulting Brightinsight has a well-developed team, but its competitiveness in the market is relatively weak. Also, the current pandemic environment is not conducive to investment, so it is not worth the investment. In this case, it reflects the success of Brightinsight's evaluation of the POCD framework and demonstrates the feasibility of the POCD framework method in evaluating start-up companies.

Keywords: *Evaluation, POCD Framework, Analysis, Brightinsight*

1. INTRODUCTION

This research constitutes a relatively new area that has emerged from the company valuation method. When people want to invest in a business or sell their business, it is helpful to calculate the value of their business so that their money is worth their money. The market value of the company represents investors' expectations about the future earnings of the company. Valuing a large company involves reviewing the company's market capitalization (stock price and outstanding shares), analyzing a comparable company, or determining its market value using an industry-wide multiplier. Additionally, for a smaller, more liquid asset corporation there is rather a simple way by using the financial information. For example, accessing the cash flow information, yearly revenue by using the yearly report. Both methods are difficult to trace, but were first adopted by banks and governments and were widely disseminated, demonstrating efficient valuation methods. Nevertheless, there seems to be a common problem in evaluating a start-up company. Only a few studies have shown using different valuation methods to judge the potential of start-ups, and most of them are based on theory rather than actual cases. One way to overcome these problems is to find a real case and using the new method to evaluate the firm. It is of interest to know whether there is an effective to valuate a start-up company still hold. We investigated whether a method called "POCD framework" can be used to valuate a start-up company named Brightinsight. The aims in this chapter are twofold: First, to see if the POCD framework can successfully measure Birghtinsight, second is to check whether the evaluation results can be used to provide a reference for investors. The key contribution of this work is the solution. It provides a new and effective method for investors to valuate new companies.

2. POCD FRAMEWORK

POCD framework is proposed by Professor William A [1] in 1996 published by Harvard Business school. It is a method called POCD framework to valuate starting up a company from an investor's view. Through the POCD method, we can evaluate the company from 4 perspectives, people, opportunity, context, and deal, whereas for a starting-up company, we mainly focus on the people, opportunity, and context part. People can be referred to like the team and people working with the specific company, for instance, the advice team. Opportunity is some external factor that may affect a company such as the market size, customer buying habits, competitors. Opportunities exist in a context.

Context is a more general perspective estimate a company, we look at the company from the social side, things like tax policy, exchange rate, inflation, technology may affect the company. The Deal refers to the company's financial information, including stock share, Cashflow information, etc. For start-ups, however, most financial information is not publicly available, so the deal part can be omitted

3. CASE STUDY OF BRIGHTINSIGHT BY USING POCD FRAMEWORK

3.1 A brief introduction of Brightinsight

Brightinsight is a digital healthcare company that operates an online platform. The platform not only optimizes and regulates the drugs and medical equipment by accelerating time to market and minimizes the risk (by providing trustworthy product information that meets the FDA standards). The company has just closed their Series C funding with $101M and were considered as one of seven start-up companies that people need to pay attention to in 2021.

3.2 POCD framework analysis: People

The company was founded by Kal Patel, MD, Ferry. Tamtoro and Ben. Kal Patel, MD has over 20 years of experience in pharmaceutical, med-tech, and regulated digital health. Based on their official website [2], as a global thought leader in the digital health space, Kal is a contributor to Forbes and regularly interviews the media and analysts about the state of regulated digital health. Before joining Brightinsight, he was the Chief Commercial Officer of Doctor on Demand, which is now the largest video healthcare provider in the United States, supported by Andreessen Horowitz, Venrock, Google Ventures, and Qualcomm. Kal founded and established Amgen's digital health business unit, responsible for the development and marketing of digital product portfolios, advanced algorithms or decisions, and next-generation marketing on connected devices, where he launched a variety of regulated devices. In the digital health field of Amgen, Kal is the head of global marketing for Enbrel, the company's leading drug with sales of more than $6 billion, where he created and initiated new clinical trials and innovative drug delivery devices. Formulation improvement and a major investment program for differentiated patient support. Kal started his career at Amgen as the company's director of strategy. Ferry Tamtoro has more than 18 years of experience in healthcare technology and digital health in the pharmaceutical and medical device industries. Ferry also holds an MBA from the Kellogg School of Management and a bachelor's degree in electrical engineering from the University of Wisconsin-Madison. He holds four patents in the field of health technology. Ben. Lee, as vice president and co-founder of data science and engineering, Ben Lee is leading the development of the BrightInsight platform, data analytics capabilities, and proprietary prediction and machine learning algorithms. Ben has 20 years of data science and software development experience in the healthcare and consumer technology industries. Ben has a BA in chemistry from Peking University, an MA in applied statistics from Ohio State University, and an MBA from the Kellogg School of Management. Founder, the company is well organized and has a comprehensive platform operating team (most of the team members have pharmaceutical experience)

At the same time, they have a team of consultants. For example, Mark T. Bertolini is a national thought leader in healthcare and a former president and CEO of Aetna Inc. Mr. Bertolini served as CEO on November 29, 2010, and became Chairman of the Board on April 8, 2011. On November 29, 2018, after CVS Health completed the $ 69 billion acquisition of Aetna, he resigned as president and CEO and became a director of CVS Health Corporation. During Mr. Bertolini's tenure at Aetna, he led the company's transformation from a traditional health insurance company to a consumer-oriented healthcare company focused on providing comprehensive and holistic care locally. The bright inside has a relatively strong team they have the company structure welly organized. Also, founders have great experience in the pharmaceutical and medical med-tech area.

However, due to the research done by LarsGlas [3], their rich experience also makes them less ambitious and innovative than new entrepreneurs, but overall the Brightinsight is an ideal investment target.

3.3 POCD framework analysis: Opportunity

Due to the Covid19 outbreak, the entire digital medical market expanded rapidly (the market grew at a rate of 11.9% from 2019 to 2020). In 2019, the global market for digital health is estimated at 175 billion US dollars. In addition, the compound annual growth rate from 2019 to 2025 is expected to approach 25%, and the digital health market will reach almost $ 660 billion by 2025 (figure 1). In the last decade, investment funds in the industry of digital health have increased substantially. In 2020, investment in this industry exceeded the US $ 21 billion, while in 2010 it was approximately US $ 1 billion. Even before the COVID19 pandemic in 2020, the demand for the use of digital health tools has increased dramatically and consumer adoption of digital health has steadily increased. In 2019, 42% of Americans reported using digital health tracking.

This has both advantages and disadvantages for the company. According to the .grandviewresearch web report, digital medical market analysts predict that by 2028, the digital medical market will grow at a compound annual growth rate of 15% to reach $ 295 billion. In 2021, on-demand healthcare will increase. At the same time, they have a team of consultants. For example, Mark T. Bertolini is a national thought leader in healthcare and a former president and CEO of Aetna Inc. Mr. Bertolini served as CEO on November 29, 2010, and became Chairman of the Board on April 8, 2011. On November 29, 2018, after CVS Health completed its $ 69 billion acquisition of Aetna, he resigned as president and CEO and became a director of CVS Health Corporation. During Mr. Bertolini's tenure at Aetna, he led the company's transformation from a traditional health insurance company to a consumer-oriented healthcare company focused on providing comprehensive care at the local level.

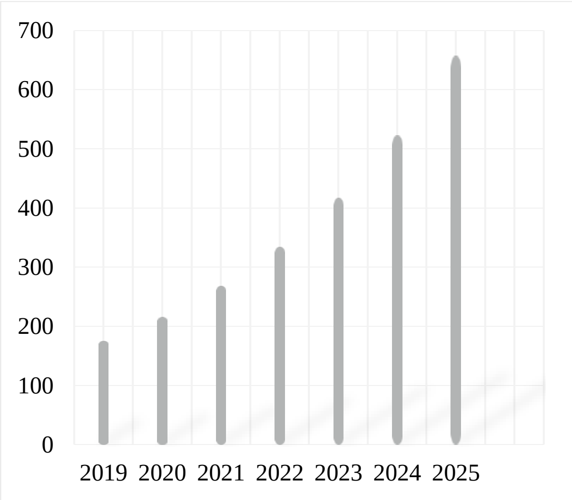

Figure 1. The market size in billion US dollars [4].

Also, we are entering a digital century, according to statistics, in the past ten years, people have become more and more mobile. Mobility is the name of the game, and recent statistics show that as of 2018, more than 50% of global web browsing occurred on mobile devices (52% to be precise). One of the first rules of content marketing is that you need to determine where your target consumers gather and reach them on these platforms (i.e., mobile devices). Given that 77% of US residents own a smartphone, this is not surprising. Most importantly, the number of global mobile phone users is expected to exceed the 5 billion marks in 2019. With more than 4 billion people online around the world, you can begin to see the possibilities offered by the digital transformation of healthcare.

Furthermore, Big Data is Important in Healthcare [5]. Big data aggregates information about businesses across social media, e-commerce, online transactions, and financial transactions, and determines future usage patterns and trends. For the healthcare industry, Big Data can provide several important benefits, including:

1)Reduce the rate of medication errors by analyzing patient records, the software can pinpoint any inconsistencies between patient health and prescription prescriptions Medications and alerting patients when they occur are a potential risk for medication errors.

2)Promote Preventive Health Care-A large number of people who enter the emergency room are relapsing patients, also known as "frequent travelers." They can represent up to 28% of visits. Big data analytics can identify these people and develop prevention plans to keep them from coming back.

3)More accurate predictive staffing analysis from big data can help hospitals and clinics estimate future admission rates, helping these institutions assign the right staff to care for patients. This saves money and reduces waiting time in emergency rooms when the facility is understaffed.

Therefore, the company was able to give out Predictive Health. Big data provides predictive analytics for the medical company and helps to deploy the right people to the facility. But another factor supporting the digital transformation of healthcare is predicting what illnesses and illnesses will be the main issues shortly. Information gathered through big data and other marketing sources may help healthcare companies develop healthy lifestyle recommendations for their patients. For example, you can hire analysts to analyze keyword activity on social media channels and major search engines to determine the most common searches for health status, illness, and general health. You can then develop a predictive model that predicts when and where the next major medical problem will occur, and how the company can prepare for the event. However, small-scale predictive analysis helps businesses of all sizes decide when to hire temporary workers for an impending cold and flu outbreak that can lead to worker shortages.

In such an environment, as an emerging industry in recent years, although there is no terminal market for large companies, there are many small competitors.

Unlike other healthcare companies developing B2C platform (for example, Cityblock and Carestyntax) and start a fierce competition, Brightinsight is mainly focused on In the B2B field. They do not provide services to individuals, but choose to cooperate with pharmaceutical companies and hospitals. For example, they integrate data for Class I, Class II, or Class III devices [6].

Class I - These devices are the least harmful to the user and generally have a simpler design than Class II or Class III devices. Examples include enema packs and elastic bandages. 47% of medical devices fall into this category, 95% of which are not subject to regulatory procedures.

Class II - Most medical devices are considered

Class II equipment. Examples of Class II equipment include power wheelchairs and some pregnancy test kits. 43% of medical devices fall into this category.

Class III: These devices are generally life-sustaining or life-sustaining, implanted, or pose a potential unreasonable risk of illness or injury. Examples of Class III devices include implantable pacemakers and breast implants. 10% of medical devices fall into this category

Brightinsight monitored the safety and prevention of the medical equipment&drugs and given out actionable insights& customize the dashboard. The feedback they provide is time-saving and reliable because the information is based on case data. Brightinsight is currently working with Novo.Nordisk and AstraZeneca. Novo. Nordisk, a global healthcare company, was founded in 1923 and headquartered just outside Copenhagen, Denmark. Its goal is to overcome diabetes and other serious chronic diseases such as obesity, rare blood diseases, and rare endocrine diseases. It currently has more than 45,000 employees in 80 offices around the world and operates products in 169 countries. They are the largest diabetes company in the world and provide 50% of the world's insulin supply. AstraZeneca is the world's leading pharmaceutical company. However, unlike the B2C market, B2B has a smaller customer base and fewer advertising channels, making companies less likely to make big profits. In addition, the company's revenue last year was $16.5 million.

On the one hand, Capgemini, as an international company focus on multiple areas. On the other hand, life sciences are Capgemini's priority and its fastest-growing field. Their current presence includes more than 100 global biopharmaceutical companies, and they provide these companies with end-to-end digital transformation and technical services, from strategy to full-scale deployment in more than 40 countries. Its main difference lies in its "people-oriented" approach, in which people (patients, providers, team members, and partners) are at the center of everything we do: from creating new experiences for patients to co-create new operating models. and implement new technology platforms on a global scale. They operate in both B2B and B2C areas, Invent Strengthens Strategy, Technology, Design Services, and Enables Visionary Leaders to shape the future of business Qualcomm and Capgemini announce collaboration plan to support the implementation of industrial 5G private networks. According to table 1 [7], The company made 18.6 billion in 2020. Compared to 16.6 billion in 2019, the revenue increase by about 12.2%. They also have constant exchange rates of 13.7%. In 2020, they completed the Altran acquisition and merged on the day of the current fiscal year. This makes Capgemini a leading partner in the digital transformation of industrial and technology companies. The group has also found a solution to the consequences of the epidemic crisis, and its performance this fiscal year shows its strong model of operational and financial flexibility. Due to the impact of the Altran acquisition, its revenues increased 13.7% at constant exchange rates. Its organic growth, that is, outside the effects of currency and integration, contracted to 3.2%. The operating profit margin increased by 8% to 1,879 million euros, which represents 11.9% of the turnover. Therefore, compared to 2019, the contraction of in operating profit margin is controlled by 40 basis points. Finally, the generation of free organic cash flow reached a significant height, reaching 1.119 billion euros, far exceeding the forecast of 900 million euros this year.

Table 1. Capgemini annual report.

	2020	2019	2018
Period Ending	31-Dec	31-Dec	31-Dec
Period Length	0 month	0 month	0 month
Net Income	955	852	730
Cash From Operating Activities	1661	1794	1396
Depreciation	649	545	302
Amortization	-	-	-
Deferred Taxes	-	-	-
Non-cash Items	452	584	504
Cash Receipts	-	-	-
Cash Payment	-	-	-
Cash Taxes Paid	351	217	205
Cash Interest Paid	96	77	56
Changes in working Capital	-395	-187	-140

Cash from Investing Activities		-1714	-868	-728
Capital Expenditures		-206	-222	-236
Other investing Cash flow items, Total		-1508	-646	-492
Cash From Financing Activities		562	-468	-611
Financing Cash Flow Items		-47	-15	-7
Total Cash Dividends Paid		-226	-282	-264
Issuance (Retirement) of Stock, Net		-1909	119	-253
Issuance (Retirement) of Debt, Net		2744	-290	-67
Foreign Exchange Effects		-131	-12	-41
Net Change in Cash		378	446	16
Beginning Cash Effects	-		308	2703
Ending Cash Balance	-		754	2719
Free Cash Flow	-		1572	1160

Through data comparison, we can find that the B2B market and the B2C market are not comparable at all. Camp is almost 100 times more profitable than Brightinsight. As an investor, this is definitely a fact needs to be considered.

3.4 POCD framework analysis: Context

The 2019 coronavirus disease outbreak in 2020 has sensitized the financial media, academia, and bankers to the challenges of measuring inflation during a pandemic. Base on the research done by OlivierArmantier [8], while consumption patterns are affected by social distancing and lockdown requirements, these sudden changes can skew inflation measures. Cavallo investigated the impact of changes in spending patterns caused by the 2020 coronavirus pandemic on inflation measures. He suggested that the welfare effect is particularly relevant for low-income households and extends to countries where sectoral inflation rates vary due to price changes. The term "sectoral inflation" refers to price increases in different business sectors of a country. For example, transportation sector industries include new cars, auto fuel, used cars and trucks, and car and truck rentals.

Most of the differences between the official inflation indicator and the COVID19 inflation indicator are reflected in food and fuel costs [9]. One reason for the discrepancy is that the COVID19 CPI uses real-time spending data and spending weights generally lag. (However, the BLS CPI data updates the weights every two years.) As Cavallo explained, the "Basic CPI" index does not include food and fuel, but "Cobitcoa" exceeds the official 2020 CPI minus food and energy. High state. . It can be applied to all publications. This difference is due to the small share of expenditures in the deflationary subcategories of non-energy transport (such as public transport and old and new cars). The results of the author's research show that during the coronavirus pandemic, the cost of living has risen faster than the official IPC cost of living. To investigate the impact on households, the author updated their weights using the following monthly income quintile data from Opportunity InsightsTracker and used data from the 2018 BLS Consumer Spending Survey. The results show that low-income households spend more on food than on transport, which exacerbates the gap in inflation indicators at the beginning of the pandemic. Cavallo said that low-income households have a higher COVID19 inflation rate (1.12% in May 2020) compared to high-income households between pandemics (only 0.57%).

From a market perspective, since the outbreak of COVID19, the rate of decline of market-based inflation indicators is accelerating significantly. Inflation-related swap rates (ILS) can be used to derive market indicators of inflation expectations. Participants in an inflation-linked swap contract pay a fixed rate cash flow of nominal principal, and other participants pay a variable interest rate linked to an inflation index. Therefore, the ILS Euro interest rate measures current 5-year inflation expectations five years ago by holding a long position in a 10-year inflation index swap contract and a short position in a 5-year contract. The index hit a record low of 0.71% on March 23, 2020. The efforts of the central bank and the government to contain the recession have restored market inflation to 0.9%, but market inflation is still the lowest inflation target since 2020. European Central Bank Central Bank). Much lower than the European Central Bank), but close to 2% [10].

The U.S. Bureau of Labor Statistics (BLS) used CPS data to track unemployment and used it in previous surveys to examine determinants of corporate ownership. CPS brings the current job activity of the business owner and whether the business owner is currently running a business. So, you can bring the number of active business owners into your data, but it cannot determine whether it is a temporary business closure or a permanent business closure. However, many inactive business owners could permanently close their businesses, especially if the economic downturn caused by COVID-19 is prolonged. Temporary closures caused by the pandemic are problematic even as they reflect the loss of income of business owners during those inactive months. This study first evaluated the initial impact of COVID 19 on small business owners in April 2020 CPS microdata [11]. Due to changes in health and needs due to COVID19 requirements and the economy, the number of active employers has decreased by 15 million. It will increase to 11.7 million in February 2020 and to 11.7 million in April 2020. The loss of 3.3 million active operators (or 22%) is the largest decline on record. The loss adapted to about 2-4 days a week is much higher (28% and 31%, respectively). Total working hours for all employers decreased by 29%. Registered companies pay more attention to growth and stability, but declined by 20% between February and April 2020. The economic recession under the general trend indirectly leads to the depression of the investment industry, and the sustainable development of the start-up industry is not very good. From an investor's perspective, Brightinsight is not a good investment target for investors

4. CONCLUSION

In short, based on the POCD framework. The business is not an ideal investment. This research focuses on the startup valuation methodology, used in the POCD framework, and analyzes specific cases. The integrated team makes the company a solid investment. But the analytics-driven market has huge potential, but it also has many competitors whose margins are relatively low or not comparable to other B2C companies. In addition, inflation due to the COVID-19 pandemic has made investing particularly difficult. Based on the above analysis, Brightinsight is not an ideal investment target. Through our research, we have found that the POCD framework can effectively assess and analyze the potential performance of startups and provide benchmark information to investors. The study also provides a good starting point for the future assessment of the startups market.

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