Analyzing Pricing Models in the Context of Mental Health Markets

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Executive Summary

In today's world, mental health is becoming an increasingly important issue. To address, this the crossroads between technology and healthcare has become more and more apparent, with many mental heath apps seeking to help consumers on this issue and reduce stigma. Hespr is one of these companies, and although in early stages of development, has a large potential to make a lasting impact. By researching pricing models and business models in the mental health software industry, this report hopes to provide insight on how these business practices can impact business finances, and ultimately have greater implications for decisions at Hespr. By using a variety of financial analysis and data analysis techniques, three competitors were analyzed in terms of their finances and business models. A key finding from this report is that consumer direct models often allow for much faster growth, while business-to-business growth is typically slower.

Introduction

Hespr is a mental health startup founded in March 2020 with the goal of changing the way mental health is perceived in society. According to the company vision, "Life will be centered around well-being. Right now, if you think of mental well-being as a car, most of the world is in the backseat. We have little control and are just reacting to where we are going. Our mission is to empower users to take control of their well-being, gain the confidence to jump into the driver's seat, and become more proactive with their well-being to collectively improve their mental health".[1]

The focus of mental health is a rapidly growing industry within the medical field in the 21st century. In 2020, the total mental health market in the United States was valued at $18.7 billion, an increase from 12.6 billion in 2010.[2] According to one report by Lyra Health, "44.7 million Americans reported living with a mental illness. This translates to nearly one in five people. As a result, the U.S. spends over $201 billion annually on treatment for mental health conditions".[3] In short, mental health is a large, overlooked priority for both businesses and the consumer. Several pain points such as stigma, network inadequacy, and speed to care all greatly affect businesses. At the bottom line, this impact can be clearly seen, with a large fiscal impact: "and yet, mental illness still costs the country $193 billion in lost earnings and productivity each year".[4] As a result, mental health software and applications are a growing sector in this industry, seeking to resolve these pain points. For their value proposition, mental health apps typically

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[1] "Mission Statement", Hespr, 2020.

[2] https://www.ibisworld.com/industry-statistics/market-size/mental-health-substance-abuse-centers-united-states/

[3] https://www.lyrahealth.com/wp-content/uploads/2018/12/State-of-the-Mental-Health-Marketplace-Report.pdf

[4] Ibid.

allow for collaborative care and behavioral health integration, as well as increased data sharing and collection which allows for increased research into the field.

In addition to the corporate scene, mental health is a large concern for the consumer. Dale Beerman, Chief Technology Officer at Sanvello Health and former CEO of Pacifica states, "40 Million adults in the U.S. are affected by anxiety disorders. Two-thirds of them are not in treatment due to the stigma, the cost, or the commitment involved. Pacifica is designed from the perspective of someone with anxiety in order to provide a unique solution that addresses how anxiety affects people on a daily basis".[5] In the United States, about 46.4 of adults will experience a mental illness during their lifetime, and only 41% of those received professional services or healthcare in the past year.[6] Mental Health apps fill a niche by providing a more flexible, cheaper alternative for those struggling with mental health than traditional treatment.

Hespr is a Mental Health company with the primary goal of reimagining how mental health is perceived in the 21st century society. Leadership at Hespr is structured in a standard form. C suite roles are designated as follows: CEO, CFO, CPO, CXO, CTO, and CMO. After this, Hespr has a vice president of product development as well as four marketing interns. Although there are defined C-Suite roles, these individuals mostly focus on product development while the CMO and marketing interns take care of marketing. Within product development, there are two sections: front-end and algorithms. These two groups work independently to both develop the User Interface of the product, as well as the coding and algorithms that drive it. The CXO acts as a liaison between these two groups.

From the beginning, Hespr was envisioned as a startup with its own unique "startup culture". According to Hespr's culture documents, three main concepts are at the core of all work done: effortless communication, Buddhi Gyaan, and Grind.[7]

Effortless communication means exactly that-open and honest circulation of ideas without hidden messages or politics. According to the company, "Do you disagree with someone? Say it. Do you need a day off? Say it. Do you really love the work someone has been putting out lately? Say it. And leave the politics behind when you say so. Just speak your mind in a respectful manner, be willing to hear others, and trust that your team will do the same for you. We leave our egos outside the door and use diverse ideas for innovation".[8] This example goes far to illustrate the concept of effortless communication.

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[5] https://www.linkedin.com/company/pacifica-labs-inc-/

[6] https://www.nimh.nih.gov/health/statistics/mental-illness.shtml#:~:text=Prevalence%20of%20Any%20Mental%20Illness%20(AMI),-Figure%201%20shows&text=In%202017%2C%20there%20were%20an,%25)%20than%20men%20(15.1%25).

[7] "Startup Culture", Hespr, 2020.

[8] Ibid.

Buddhi Gyaan is a Hindi phrase meaning "intelligence". At Hespr, this phrase is used to mean that all decisions should be driven by data and scientific. This means that each and every decision made can be justified with quantifiable evidence.

The "grind" is another concept mentioned in the culture statement. The colloquial meaning of this term is to work hard for long periods of time to make significant progress. At Hespr, this meaning is kept in spirit. The company culture statement says, "Everyone has a busy schedule outside of work. That means everyone has to stay focused during synchronous and synchronous work sessions and have the initiative to get things done on solo tasks. Grinding isn't just about working yourself to death, it's about knowing how to engage your "hard work" mode and celebrate just as hard after". In fact, at Hespr, it is not about working hard, it's about working smart. The quality of the final product matters far more than how many hours was put into it. Working smart, and at the right time will always be beneficial. In fact, we can relate this concept to Hespr's roots in today's capitalist society. The prioritization of product quality over working harder places an emphasis on the Austrian school of economics over Marxian economics. According to the Austrian school of economics, the value of the product is subjectively determined by its utility to the consumer.[9] Carl Menger first published this new theory of value in 1871, in his belief that a product's value was only found in its ability to satisfy human desires. In addition, he reasoned, that the more of a product existed, the less important it was, while the less of a product existed, its use would be more important. This second theory of marginal-utility of value addressed one of the great paradoxes of the time: Adam Smith's diamond-water paradox. Adam Smith questioned that although water was necessary for life, but diamonds were not, why is it that the price of diamonds is exponentially higher than the price for water? This was quickly addressed by Menger, who reasoned correctly that the scarcity of diamonds compared to the abundance of water resulted in its high price.

This theory went in great contrast to Karl Marx's earlier labor theory of value, which stated that the value of a product depended on the amount of labor necessary to create it.[10] For example, if it took ten hours to capture a deer, but twenty to capture a beaver, the exchange value would be one beaver equivalent to two deer. Marx reasoned that the labor theory of value was correct since labor was the only universal characteristic shared by all goods and services. However, there were several problems with this attempt to assign objective value. First of all, it is possible to spend large amounts of labor on useless products. Secondly, goods can have widely varying prices depending on the conditions of the market as well as the location. It is generally accepted today that subjective theories of value hold more water in explaining market trends and economics.

One may be asking, what does all of this have to do with Hespr? How can political philosophies from more than a century ago be relevant in this context today? Well, these theories

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[9] https://www.britannica.com/topic/Austrian-school-of-economics
[10] https://www.investopedia.com/terms/l/labor-theory-of-value.asp

have a very significant impact on Hespr's core values as a company. As stated previously, Hespr focuses on the quality of the final product rather than the work put in. In company memos, reports, and especially, the product for the consumer, working smart to produce a valuable product weighs more than working harder. The value proposition of the product to the customer ultimately weighs more than the amount of labor used to produce it. This is analogous to the Austrian school of economics, focusing on a subjective measurement of value rather than objective, as is the case with the Labor Theory of Value. In short, these economic principles are used in the core value of the company to ensure maximum productivity among team members developing the product.

Hespr's product is simple: a mental health app designed to help users take charge of their mental health. Again, if we refer to the mission statement, "Our mission is to empower users to take control of their well-being, gain the confidence to jump into the driver's seat, and become more proactive with their well-being to collectively improve their mental health".[11] The Hespr app is not the solution to mental health; rather, it is a tool to help consumers fulfill their own mental health, or a means to an end.

Figure 1

There are several main sections in the Hespr mobile application. Guided journaling, trends, community, and chat. Once the app is opened, the user interface looks like this. *Figure 1*.

The journal section takes the user to the guided journaling section, which asks the user a set of five questions. These are randomly selected from a bank of over two hundred questions, which include questions such as "What might you try to reduce stress?" and "What quality of yours do you want to improve?". These questions are designed to be open-ended, for the user to provide as much input as possible. The responses are fed into a dynamic database crawler algorithm. It then uses a python keyword extraction algorithm as a part of a process called "sentiment analysis." This is a process by Hespr that extracts keywords from the journal entries to determine the mood, and mental health of the user. These measurements, after seven days of use, are displayed in the "trends" page for the user to see.
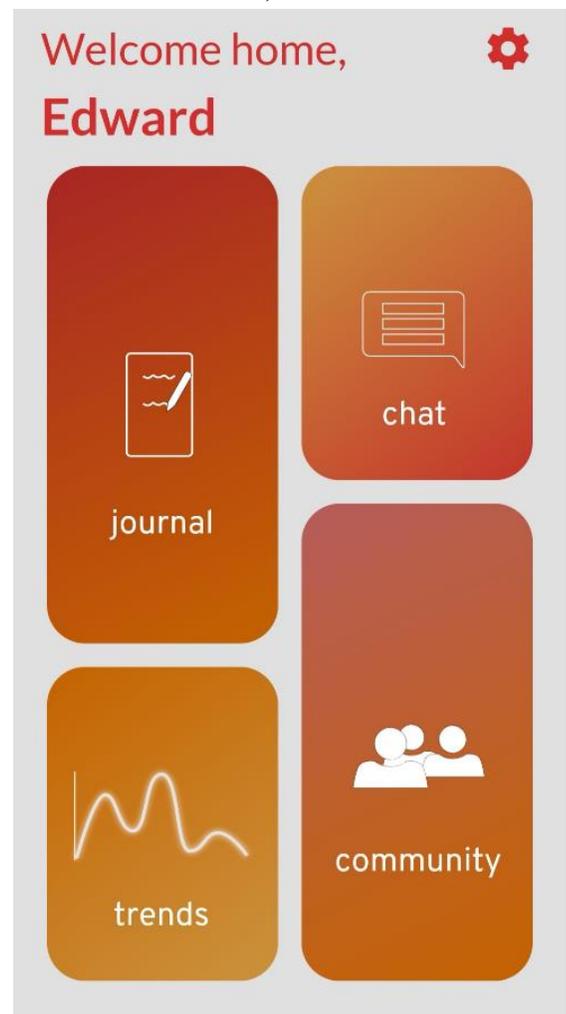
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[11] "Mission Statement", Hespr, 2020.

Business Project Description

The purpose of this project is to examine the different pricing models for apps in the mental health market, and their impact on growth and sustainability of their companies. By researching different app pricing models, this paper seeks to gain a greater understanding of the financial implications of a software company's business model. In addition, this paper will examine and analyze indicators of financial health as well as financial models of the companies in question. These methods of financial analysis and report curation were major components of the internship position at Hespr.

Business Project Research

Over the course of researching for this project, several notable companies in the mental health market were analyzed, including Replika, Lyra Health, Ginger. Several important financial metrics were looked at during the competitor analysis: business model, revenue, growth rate, and valuation.

Lyra Health

Lyra Health is an employee wellness solution started in 2015 designed for enterprise organizations. It enables users to receive care for emotional and mental well-being, and to identify people at risk of behavioral health issues. Features include behavior tracker, data capture, employee management, follow-up schedule, provider management, risk analytics, and predictive analytics. It follows the B2B model. Lyra does have a mobile app that employees can download. This app was released in 2018, however, it has not been updated since 2019. Lately, Lyra health has acquired more and more corporate customers, most notably Starbucks.[12]
Finances
- **Employees: 293** [13]
  - o Grew by **79%** in the past year
- **Total Funding: $171 Million**
  - o Series A (2015): $35 Million
  - o Series B (2018): $65 Million
  - o Series C (2020): 75 million
- **Valuation: 500million -1 billion[14]**
  - o 2018 valuation: 241 million
  - o **About 500-600 million is likely to be the most accurate current valuation**, since that number would about be five times Lyra's revenue. Similarly, in 2018, reported revenue was about 45 million compared to a valuation of 241 million, keeping a consistent revenue to valuation ratio of about 5-6.
- **Revenue: 100 million** (projected 2020) [15]

[12] https://stories.starbucks.com/press/2020/starbucks-transforms-mental-health-benefit-for-us-employees/
[13] https://growjo.com/company/Lyra_Health
[14] https://www.crunchbase.com/organization/lyra-health#section-interest-signals-by-bombora
[15] https://www.bloombergquint.com/markets/mental-health-startup-lyra-health-raises-75-million

- o 2018-45 million
- **Website:**
  - o Total visits 81,278
- **Market share**
  - o Revenue:34%
  - o Corporate Customers:0.3%
  - o User Base:0.1%
- Lyra health's fundraising activity may mean that they are burning through their capital more quickly to prioritize growth, and their relatively low revenue compared to their company valuation indicates that Lyra health is focused on rapidly growing.
- In the last year, employee count increased by 79%. The High growth rate means that Lyra is prioritizing growth over profit and equity.
- The Lyra website receives about 81,278 monthly visits. 81% of these are from the United States. There has been a greater percent increase in countries outside of the United States, indicating that Lyra Health is reaching new customers.

Market Analysis
- Lyra operates on a B2B model, with the product being primarily targeted towards businesses who want to improve their collective mental health
- The $193 billion loss in productivity is something that Lyra Health seeks to address with its product
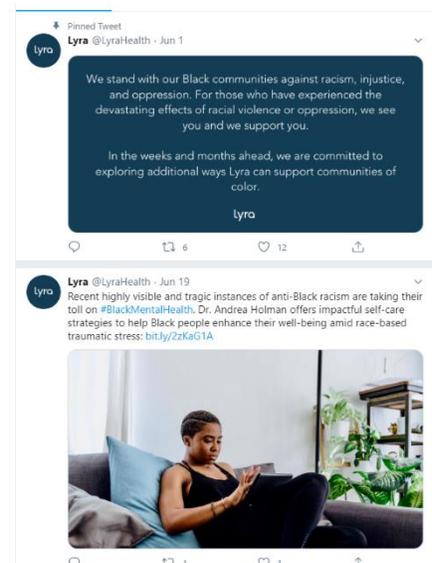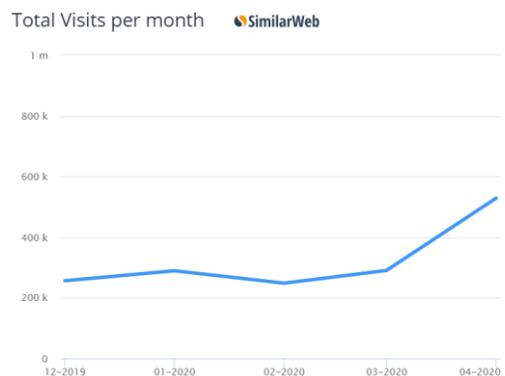

Replika

     Replika is an AI chatbot companion designed for mobile users. It was created as a project by Eugenia Kudya which launched in 2017. Users can create and chat with their own personal AI, which allows for new levels of self-reflection and an always available confidant willing to lend an ear or provide an encouraging word. These chatbots are created based on the user's activities and input and can help decide a variety of things such as making plans, eating out, and playing games.

Statistics
- User Base:2.5 million
- Total Funding: 10.9 Million
  - o Series A: 6.5 Million (2017)
  - o Series A: 4.4 Million (2016)

- Annual Revenue: 32 Million [16]
- Employees: 5-10
- Website Metrics
  - 40% USA
  - Replika has seen a recent surge in traffic in its website, which may be due to the Covid-19 pandemic and how there are more users for mental health apps
  - Most traffic still comes from the United States, however, recently there has been an increase in European markets such as Italy, Germany, and the UK, which indicate international expansion.
- Replika is still a relatively new company in the early stages of growth. Replika has only seeked out Series A funding so far, and they have few employees.
- Since Replika has not seeked out much funding, it is possible that they are looking at natural growth and to prioritize their company's profitability and equity over the growth speed.
  - Replika has not seeked out funding since 2017, meaning that they are using their current capital to grow the business instead of asking for investor money
  - Replika already generates a lot of revenue, so it is likely that they are funding their growth through this

Market Analysis
- Replika is a B2C app targeted directly at the consumer.
  - This is evident from the nature of the app, which is a 1:1 AI Chatbot.
- Replika operates on a freemium business model, with both a free version and a pro version that costs $4.17 per month for a one-year subscription
  - The pro version was released in 2019, and includes several features such as role play, conversation, and voice topics, however, what happened was that free features were taken away and put in the pro version.
    - At the time of the release of pro, many considered the value proposition of the feature to be very bad, however, the developers stated that they are working on adding features to make the pro version a better value, while also increasing the user experience in the free version.
    - At first, all features were available in the free version with the purpose of getting a large user base, and after a while the pro version was introduced with the hope of converting more users, and it is still being improved with this goal in mind
    - In addition, it should be noted that the free version still provides users with 90% of the apps functionality, which is centered around the AI avatar, while some features are locked, which is still a good reason for users to download
- Replika does not use advertisements in the app to generate revenue

Ginger.io

Ginger.io is a B2B mental health company that gives easy access to care, with an emphasis on immediate and quick support available 24/7. Ginger is an EAP, similar to ACI benefits,

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[16] https://www.zoominfo.com/c/replika/434304828

however, it has some more features, especially for mobile devices. Notable users of ginger include Pinterest, Sephora, and BuzzFeed. These companies have reported high satisfaction with Ginger, according to their website.[17] Ginger was founded in 2011, and employs a virtual staff of highly-qualified emotional health coaches, therapists and psychiatrists. Coaching is a main focus of Ginger.io's medical practice and provides people with support for day-to-day challenges, such as reaching personal goals, improving relationships, and reducing stress.[18]

Finances

- **Employees: 298** [19]
  - Grew by **47%** in the past year
- **Total Funding: $63 Million**[20]
  - Series A (2012): $6.5 Million
  - Series B (2014): $20 Million
  - Series C (2019): $35 million
- Users: 650,000
- **Valuation: 200 Million** (estimate) [21]
  - 2015 valuation: 50 Million
- **Revenue: 80.5 million**[22]
  - 2018-45 million
- Social Media
- Website:
  - Monthly visits-28,436
  - 46% US
  - 7% India
    - 181.24% growth
- Market share:
  - Revenue:27.6%
  - Users base:0.9%
- Ginger seems to be increasing its growth lately. Last year, there was a 47% increase in employees, as well as a series C funding round of 35 Million. These things point to larger growth. In addition, Ginger has been used by several major corporations with good results.

Market Analysis

- Ginger primarily sells to businesses, and as a result, ginger has a much bigger presence on sites such as Twitter and LinkedIn compared Facebook or Instagram.
- According to their website, 70 percent of users show clinically significant improvements in symptoms of depression after 10-14 weeks.
  - This statistic may be used for Ginger to market towards those with more severe mental illnesses, rather than those who are just seeking to improve their overall health

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[17] https://www.ginger.io/employers
[18] https://www.businesswire.com/news/home/20180906005287/en/Ginger.io-Brings-Seasoned-Entrepreneur-LinkedIn-Exec-CEO
[19] https://growjo.com/company/Ginger.io
[20] https://www.crunchbase.com/organization/ginger-io/funding_financials
[21] https://blog.vcexperts.com/2015/04/16/featured-company-ginger-io/
[22] https://growjo.com/company/Ginger.io

Business Project Key Learnings & Recommendations

Two common business models are seen throughout almost every app available today: freemium and premium. The freemium busines model provides a free version of the app, while at the same time offering a paid version with more features. Premium apps are paid-only, and users can unlock a variety of features and services with their purchase or subscription. Note that one of the chief purposes of freemium is to attract new users. If that goal is not successful, it probably means that the free offerings are not compelling enough, more or better features need to be available. If an app is generating lots of traffic but few people are paying to upgrade, there may be the opposite problem: The free offerings are too rich, and it's time to cut back. Start-ups should expect to do similar tweaking to find the optimal balance between traffic and paying customers.

The majority of the mental health tech space follows either D2C (Direct to Consumer) or B2B (Business to Business) and have proven to be successful with these monetization methods. Potential incentives for companies that can be of use are reduced price rates for a limited period of time or reduced per user rates based on size of the company.

One key takeaway from the study of business models compared to a company's financial status is that consumer direct models often allow for much faster growth, while business-to-business growth is typically slower. This trend is seen in all major companies analyzed, and even applies in fields outside of the mental health industry. Consumer direct models, or B2C, allow for faster growth because of their nature: consumers, as individuals, will flock to products that they have a need for. This results in fast growth, as there are many individuals across the world and these markets tend to be large and diverse. Companies who follow this model are typically less likely to be profitable and are more likely to have greater investment and high valuations relative to revenue. One notable example of a company with a B2C model is Calm, with a valuation of one billion dollars but a meager annual revenue of 80 million dollars. Calm has also raised over $140 Million in funding over the past two years (with a $27 million Series A in 2018 and $88 million in Series B in 2020), further exemplifying it as a B2C company with a high growth rate. On the contrary, business to business (B2B) business models emphasize building strong, lasting relationships with large corporate customers who have a need for the service. These companies will typically have lower valuations and prioritize profitability over rapid growth. Ginger is a good example of this, with a valuation of $200 million and an annual revenue of $80 million. Ginger has only raised $63 million since 2012, with gradual funding rounds every few years as the company chooses not to take on as much debt to finance expansion. In conclusion, the business models of companies in the mental health industry can have a significant impact on their financial status and company decisions. These findings should be kept in mind for those who choose to enter this industry, either through a start-up company, or by investment.

Annotated Bibliography

1. "Mission Statement", Hespr, 2020.

2. https://www.ibisworld.com/industry-statistics/market-size/mental-health-substance-abuse-centers-united-states/

3. https://www.lyrahealth.com/wp-content/uploads/2018/12/State-of-the-Mental-Health-Marketplace-Report.pdf

4. https://www.linkedin.com/company/pacifica-labs-inc-/

5. https://www.nimh.nih.gov/health/statistics/mental-illness.shtml#:~:text=Prevalence%20of%20Any%20Mental%20Illness%20(AMI),-Figure%201%20shows&text=In%202017%2C%20there%20were%20an,%25)%20than%20men%20(15.1%25).

6. "Startup Culture", Hespr, 2020.

7. https://www.britannica.com/topic/Austrian-school-of-economics

8. https://www.investopedia.com/terms/l/labor-theory-of-value.asp

9. https://stories.starbucks.com/press/2020/starbucks-transforms-mental-health-benefit-for-us-employees/

10. https://growjo.com/company/Lyra_Health

11. https://www.crunchbase.com/organization/lyra-health#section-interest-signals-by-bombora

12. https://www.bloombergquint.com/markets/mental-health-startup-lyra-health-raises-75-million

13. https://www.zoominfo.com/c/replika/434304828

14. https://www.ginger.io/employers

15. https://www.businesswire.com/news/home/20180906005287/en/Ginger.io-Brings-Seasoned-Entrepreneur-LinkedIn-Exec-CEO

16. https://growjo.com/company/Ginger.io

17. https://www.crunchbase.com/organization/ginger-io/funding_financials

18. https://blog.vcexperts.com/2015/04/16/featured-company-ginger-io/

19. https://growjo.com/company/Ginger.io

Appendix

Analyzing Business Models in the Context of Mental Health Markets

Business to Consumer

- Faster growth
- Wider Audience
- Freemium pricing models
- Larger valuation to revenue ratio

Business to Business

- Slower growth
- Prioritization of profit
- Custom pricing models
- Less spent on advertising

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IMSA
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