**GNG2101 Report**



**Project Deliverable G: Business Model and Economic Report**

 Submitted by

Team 4.2 - Immersive VR Experience

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**Introduction**

In this deliverable, we will discuss our business model after our product launch and also an economics summary of our fictitious business. We will also provide our most critical business assumption and will research the current market for our product to make reasonable assumptions. We will also develop a 3-year income statement, cost associated with the business and a cash flow statement.

**Business Model**

Our team will use **freemium and premium business models** to commercialize our team’s product.

 Our team is aiming to build VR immersive experience applications to help the user deal with discriminations like language barrier, race, gender, sexual orientation, religion, visible or invisible disability. Our productions are VR immersive experience applications, this business mode can make users easily achieve our products. By using a freemium business model, users can have some basic training. It would be helpful for individual users. By using the Individual premium business model, users can have an up-to-date training experience but that is for governments, schools, companies and organizations.

 The freemium model entails offering free basic features in terms of the VR immersive experience and expanding the depth of features once a subscription is attained. A well-developed immersive VR experience that helps users feel empathy towards discrimination offers a high-degree of utility to users. Given this, it serves the purpose of VR development to allow easy access to basic VR functionality to as many users as possible. However, given institutions want to adopt the VR experience into learning and training curricula, offering a subscription through the freemium business model would allow them to acquire a more expansive functionality of the software. Furthermore, given smaller businesses or individuals want to use the VR experience, they can also sign up for a subscription with added functionality. This will support and strengthen the institutions through proper education and training that isn’t accessible without a subscription.

| **How?** | **What?** | **Who?** |
| --- | --- | --- |
| ***Key Partners***Government, Educaters，Psychologists,Doctors,People with discrimination experiences, VR Developers | ***Key Activities***Build VR immersive experience applications. Deliver the application to customers. | ***Value Proposition***Help the user deal with discriminations like language barrier, race, gender, sexual orientation, religion, visible or invisible disability. Provide a deep, immersive, education experience to users.  | ***Customer Relationships***Same-side Network EffectsCross-side Network Effects | ***Customer Segments***Universities,Governments,Post-high school students,People with discrimination experiences |
| ***Key Resources***Servers/cloud,VR immersive experience applications built by Unity platform | ***Channels***Cloud library,VR immersive experience applications |
| ***Cost Structure***Product Development,Web Hosting costs,General and Administrative | ***Revenue Stream***Free offerings and premium subscription. Marketing Solutions. Advertisements within the VR. However, our team is not aiming to make money since we are doing this for public welfare. We try to get financial support from the government and public donations.  |

**Core Assumptions in developing our Business Model Canvas**

The VR experience is intended for educational institutions. The core assumption is that this product will attract users in educational institutions, which can potentially be extended to users in different industries as part of their training program for Employees. The core assumption can be validated by examining if educational institutions will adopt our VR experience.

Another core assumption is that we will be able to host our VR experience on the cloud to allow users to access. We can test this by examining various options of hosting our VR experience that will allow users to utilize within their training experiences.

The table below is the outcome of user and technical benchmarking on three companies who are offering similar services and products aiming at public welfare and educational training.

|  | **Equal Reality** | **VOISS** | **Scott Howie** |
| --- | --- | --- | --- |
| **User Benchmarking** | Youtube account registered on 2017-04-12, 352337 views, 586 followers, 43+ videos, few comments, and hundreds of thumb ups.Facebook business account, 999 likes, 1056 fans, few but all good comments. | Youtube account registered on 2021-04-01, 4034 views, 75+ videos, no comments, few thumb ups.Facebook account, 184 users like it, 188 users followed, no comments. However, from the recent update, VOISS is concerned by the Egyptian educational system and is going to have international collaborations. | Issue Date:13 Jun, 201850% of the 10 user reviews for this game are positive. |
| **Technical Benchmarking** | Viveport (Personal computer) | Google play(Android),Test Light(ios) | Steam (Windows) |

The outcome of this table is telling that there is a high possibility that our products will not gather social attention. However, governments and educators might care about our products as they are often dealing with youth problems, discrimination problems and problems from societies.

**Economics Report**

**Costs**

| Marketing | $5,000 | Indirect (variable) |
| --- | --- | --- |
| Electricity | $6,000 | Fixed  |
| Salaries  | $160,000 | Fixed Direct (labor) |
| Staff Training  | $3,000 | Direct (labor) |
| VR Development  | $100,000 | Semi-variable |
| Software Licensing Fees | $1,000 | Fixed (variable) |
| Rent | $20,000 | Fixed  |
| Tax  | 9% | Special Costs (Tax) |
| Bank Loan (7% per annum) | $300,000 | Indirect |

**Income Statement**

| Description | 2022 | 2023 | 2024 |
| --- | --- | --- | --- |
| **Revenue**  |
| Gross Profit on Sales (Cost of VR Simulation $4,000) |  **$284,000** |  **$400,000** |  **$450,000** |
| **Operating Expenses** |
|  VR Development  |  100,000 |  150,000 | 180,000 |
|  Marketing | 5,000 | 7,000 | 6,000 |
|  Staff Training | 3,000 | 2,500 | 4,000 |
|  Salaries  |  160,000 |  205,000 | 210,000 |
|  Electricity | 6,000 | 6,500 | 6,600 |
|  Software Licensing Fees | 1,000 | 1,400 | 1,400 |
|  Rent | 20,000 | 22,000 | 24,000 |
|  Total Operating Expense | **$289,000** | **$394,000** | **$432,000** |
| **Operating Income**  | **($5,000)** | **$6,000** | **$18,000** |
| **Net Income** | **($5,000)** | **$6,000** | **$18,000** |

**Cash Flow Statements**

| Description | 2022 | 2023 | 2024 |
| --- | --- | --- | --- |
| **Cash In**  |
| Gross Sales | $284,000 | $400,000 | $450,000 |
| Sales Tax, VAT, HST/GST Received | $1,000  |  $1,200 |  $1,300 |
| New Current Borrowing | $5000 | $4000 | $3200 |
| Total Cash In | $290,000 | $405,000 | $454,500 |
| **Cash Out** |
| Sales Tax, VAT, HST/GST Paid Out | $3000 | $3700 | $5000 |
| Bill Payments | $100,000 | $140,000 | $190,000 |
| Subtotal Spent on Operations | $170,000 | $180,000 | $170,000 |
| Total Cash Out | $273,000 | $323,700 | $365,000 |
| **Net Cash Flow = (total cash in – total cash out)** | $17,000 | $81,300 | $89,500 |

**Cash Flow Diagrams**

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**NPV Analysis**

Rate of Return: 3%

NPV = NPV Year 2020 + NPV Year 2021 + NPV Year 2022

NPV = $\frac{\$17,000}{(1+0.03)^{1}}+\frac{\$81,300}{(1+0.03)^{2}}+\frac{\$89,500}{(1+0.03)^{3}} $

NPV = $175,043.08

Break even point is when the NPV = 0,

Annuity Factor: 0.03

Initial Investment: 10,000

Cash Flows = Initial Investment

0.03 \* (4000 X - 290,000) = 0

X = 155.8 units

Thus, 156 untis must be sold in order to reach break even.

**Market Research and Assumptions**

When conducting similar products, we realized that our product would be tailored to experience for educational institutions. The core assumption is that this product will attract users in educational institutions, which can potentially be extended to users in different industries as part of their training program for employees. Moreover, when researching VR training pilot programs, we learned that most pilot costs cost somewhere in between costs between $20,000 and $30,000 (Barto 2022). However, this is a cost for advanced training simulations, however we are developing a low fidelity model and does not contain many advanced features. Thus we choose the unit price of our VR training simulation to be $4000. Moreover, VR training is becoming increasingly popular as it gives users a more immersive experience helping them in real world solutions. Moreover, during economic standstill and social barriers VR bridges this gap which makes the VR business an increasingly demanding field. Moreover the figure above, depicts the VR marketing trends and the market size of VR technology of each sector of industry. Moreover, we expect to own around 5 percent of the education sector in the VR industry, as a small business just starting out we hope to further expand our operations and be able to develop more modules for educational training. 

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**Conclusion**

In this deliverable, we learned a lot about developing financial statements for a business and the market research and financial statements one needs to prepare when developing a business. It also helped us with making our product more feasible in the future when continuing to develop.

**Citations**

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