

GNG 2101 Deliverable H

Economics Report

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Introduction

This stage will see our group conduct an economic analysis of our project thus far including a list of monetary variables along with their types, and an income statement predicting the next 3 years. We will also determine the Net Present Value(NPV) of our assets and determine the “break-even point”, the number of units to be sold before the business becomes profitable. This deliverable will also include a one-minute video pitch of our solution to the proposed problem and an updated project plan to reestablish the progress of our work towards the goal of the project.

Assumptions for Calculations

The business model we chose is the freemium model, meaning the app will be free upfront for basic features but if the user wants more functionality then they upgrade to the paid version. Our calculations are done based on the assumption that 5% of all blind Canadians, which is 75,000, use our app by the end of third year and that 20% of them upgrade to the premium. Thus at the end of the third year we have 15,000 paid users and it costs \$1.99 to upgrade to the premium app.

List of Economic Resources

Table 1. List of costs associated with our business

Cost #	Description	Classification
1	Salary	Labour, fixed cost
2	Tax	Expense, taxation cost
3	Overhead (Publishing to app store)	Expense, indirect cost
4	Marketing	Expense, indirect cost
5	Depreciation	Expense, indirect cost

Income Statement

Position #	Description	End of Third Year
10	Revenue	
10.1	Sales (15,000 <i>users</i> × \$1.99)	\$29,850.00
	Revenue Share (0.15*#10.1) <i>Fee paid to Apple per one-time in-app purchase.</i>	\$4,477.50
	Gross Profit on Sales	\$25,372.50
20	Operating Expenses	
20.1	Marketing (100,000 <i>viewers</i> x \$0.02/view)	\$2,000
20.2	Salary (\$14 × 10 <i>h</i> × 48 <i>weeks</i> × 1 <i>employee</i>)	\$6,720
20.3	Overhead	\$128.95
20.4	Depreciation	\$649.67
20.5	Total Operating Expenses	\$9,498.62
30	Operating Income (#10.1 – #20.5)	\$15,873.38
40	Net Income	\$15,873.38

Assumptions for Income Statement:

- App will have 75,000 users by the end of 3 years
***Number generated from assumption that 5% of blind Canadians will use the app*
- 20% of users will upgrade ie. 15,000 users
- Overhead is the cost to publish to the app store
- Employee was given 13-inch Macbook Pro (1.4GHz Quad-Core Processor with Turbo Boost up to 3.9GHz, 512 GB Storage, Touch Bar and Touch ID)
- Only 1 employee will stay on the project and they only work between study terms (thus working a total of 48 10 hour weeks over 3 years)

- Marketing is done solely using Youtube Ads and has reached 100,000 viewers by the third year.

Break Even Analysis

To calculate how many upgraded users is required in order to break even, sales (ie. $1.99 \times N$ where N is the number of upgraded users) must be equal to the *total operating expenses* with consideration for the revenue share (ie. $0.15 \times \text{sales}$). Thus, the resulting break-even equation is as follows:

$$1.99 \times N = 9498.62 + 0.15 \times (1.99 \times N)$$

We then solved for N , and found out that we need 5,516 upgraded users to break-even.

***Final value for N was rounded up.*

Conclusion

For this deliverable, we created an economics report that included a list of costs, a 3-year income statement and a break-even analysis. All of which are based on assumptions made on the progression of our product. To get started, the team has decided to market with a short introductory video in hopes of attracting clients. When we are able to gain more clients, we can work towards the targets set in this report. In the future, we can look back at the projection of our income and expenses to determine how successful the product has become or how much harder we have to work.

References

<https://cnib.ca/en/sight-loss-info/blindness/blindness-canada?region=on>

<https://developer.apple.com/app-store/business-models/>