

Project Deliverable H: **Economics Report and 1 Minute Video Pitch**
GNG 2101 – Intro. to Product Dev. and Mgmt. for Engineers Faculty of
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Section: Z
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Introduction

In this document, we will present an economic statement regarding the operation of our custom tactile map business. We will discuss our business costs, income over the years as well as perform a net present value analysis to determine our company's break-even point, all of which are essential to measuring our business' success.

Business Costs

Cost #	Description	Cost Classification
1	Marketing	Fixed Indirect
2	Production Equipment (machinery)	Fixed Direct
3	Production Materials	Material, Variable Direct
4	Electricity	Semi-variable
5	Salary	Labour, Fixed Direct
6	Consultation Office Furniture and Equipment	Material, Fixed Direct
7	Rent	Fixed Indirect
8	Financial Cost (debt)	Fixed Indirect
9	Overhead	Fixed Indirect
10	Depreciation	Fixed Indirect
11	Tax	Taxation Cost

3-year Income Statement

Tactile Co. is a Canadian company that specializes in the design and manufacturing of tactile maps. Tactile Co. plans to produce and sell 1510 tactile maps at \$400 per unit in its third year of operation. It also plans to spend \$25,000 for marketing campaigns, \$40,000 for production equipment, \$170,000 for production materials, \$85,000 for electricity, \$125,000 for salaries, \$60,00 for the consultation office furniture and equipment. Finally, \$20,000 will go towards paying overhead costs, \$25,000 for rent and \$10,000 for depreciation cost. Tactile Co. also has a debt of \$100,000 at an annual simple interest rate of 5% and a 25% income tax rate.

Position #	Description	End of Third Year (\$)
1	Revenue	
1.1	Sales (1510 x \$400)	\$604,000
2	Operating Expenses	
2.1	Marketing	\$25,000
2.2	Production Equipment	\$40,000
2.3	Production Materials	\$170,000
2.4	Electricity	\$85,000
2.5	Salary	\$125,000
2.6	Consultation Office Furniture and Equipment	\$60,000
2.7	Rent	\$25,000
2.8	Overheard	\$20,000
2.9	Depreciation	\$10,000
2.10	Total Operating Expenses	\$560,000
3	Operating Income (#1.1- #2.10)	\$44,000
4	Interest Expenses (\$100,000 x 0.05)	\$5000
5	EBT (Earnings Before Taxes)	\$39,000

6	Income Taxes (#5 x 0.25)	\$9,750
7	Net Income (#5 - #6)	\$29,250

NPV Analysis

The break-even point is the moment at which the revenue is able to cover all operating expenses and Tactile Co. begins making profit. In such case:

units sold x price per unit = operating expenses

units sold x \$400 = \$560,000

units sold = 1,400

In summary, Tactile Co. must sell 1,400 in order to break even.

Assumptions

While developing this economics report, we assumed that our company would be able to reach a large clientele that includes countries outside of Canada. We would be fulfilling bulk orders as well (i.e. in the case of large events such as sports events for people with visual impairments). We wanted to have a bigger marketing budget as we presumed that tactile maps are not a commonly used product and would need to be marketed well in order to reach out to our desired consumers. These first three factors would help increase sales. Moreover, each map would only require a small team of people from the design phase to building the finished product which helps save money on salaries (labour cost). Finally, the materials used to build our maps would be inexpensive (acrylic, plastic, etc.) and provided by Canadian companies making our them more affordable.

Conclusion

Based on our economic report, we can see that Tactile Co. has the potential of being an economically viable business.