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*Market Analysis*

Drinking water and industrial water all require to pass stringent requirement prior to further using. There are many specificications that water needs to pass. One of requirement is Total Dissolved Solid (TDS) and it can measured through turbidity meter. Two types of turbidity meter are commonly used in the market including holdheld and benchtop. According to Future Market Insight, global turbidity meter will reach one billion US dollar in 2029 end. Handhold turbidity meters will reach 400 million by 2029 end. [1] This business proposal is targeting on handhold turbidity meter.

*Current Market Competitors*

There are many brand companies manufacturing this device including Thermo Scientific. Lowest price is $913.5 Canadian dollars and highest one is $2224.82 canadian dollars.Since this is new product, I will make my product lowest in the market in order to sell quickly. I will set my price as $500 Canadian dollars. After generating quick cash and will the profit to manufacture more products.

brand <- c("Oakton","Hach","Extech","Thermo Scientific", "HF Scientific","Lovibond")  
lowest\_price <- c(1259.01, 1969.92,913.5,1804.9,1565.48,1613.36)  
highest\_price <- c(1617.05, 1969.92, 913.5,2224.82,1565.48,1613.36)  
  
HandheldTurbidityMeter <-data.frame(brand,lowest\_price,highest\_price)  
  
knitr::kable(HandheldTurbidityMeter,caption = "Major vendors of Handheld Turbidity Meter")

Major vendors of Handheld Turbidity Meter

|  |  |  |
| --- | --- | --- |
| brand | lowest\_price | highest\_price |
| Oakton | 1259.01 | 1617.05 |
| Hach | 1969.92 | 1969.92 |
| Extech | 913.50 | 913.50 |
| Thermo Scientific | 1804.90 | 2224.82 |
| HF Scientific | 1565.48 | 1565.48 |
| Lovibond | 1613.36 | 1613.36 |

*Busniess Plan*

In the first stage, a funding is required. Potential funding partner includes school enterpreship plan from guelph

university. Canadian governemnt also provides funding for enterpreship. There are many funding body in Canada govern body. [4]

Organization <- c("BDC Small Business Loan","BDC Newcomer Entrepreneur","Canada Small Business Financicing Program","MaRS Investment Accelerator Fund","OCE Market Readiness Program", "OCE Voucher Programs")  
  
Govern\_body <- c("Federal","Federal","Federal","Ontario","Ontario","Ontario")  
  
funding\_body <- data.frame(Organization,Govern\_body)  
  
knitr::kable(funding\_body,caption = "Potential Funding bodies for Turbidity Meter Startup")

Potential Funding bodies for Turbidity Meter Startup

|  |  |
| --- | --- |
| Organization | Govern\_body |
| BDC Small Business Loan | Federal |
| BDC Newcomer Entrepreneur | Federal |
| Canada Small Business Financicing Program | Federal |
| MaRS Investment Accelerator Fund | Ontario |
| OCE Market Readiness Program | Ontario |
| OCE Voucher Programs | Ontario |

Second stage is manufactuing sample step, we will manufacture just a few samples by myself for demostration only. I can just use my garage to assembly turbidity meter.   
  
 Third stage is marketing step,I will call all of water related company to see they wants to try our new product. Below shows potential customers. In the early stage, I will send out emails to them or call them to promote this product.

Company <- c("Protected Elsius","Genome Alberta","Xenon Pharmaceuticals Inc", "Takeda Canada Inc","BIOTECanada","MaRS Discovery District","University of Waterloo","Merck Canada","Pfizer Canada Inc","Valeant Canada","BioAuxilium Research")  
Location <- c("Alberta:Calgary","Alberta:Calgary","British Columbia:Burnaby","Ontarion:Oakville","Ontario:Ottawa","Ontario:Toronto","Ontario :Waterloo","Quebec:Kirkland","Quebec:Kirkland","Quebec:Montreal","Quebec:St Laurent")  
Category <- c("Industry Service & Support","Early stage biotechnology","Early stage biotechnology","Commercial biotechnolgoy","Industry Organization","Incubator & Accelerator","Research and Academia","Commercial biotechnology","Commercial biotechnology", "Industry Service & Support","Commercial biotechnology")  
customers <- data.frame(Company,Location,Category)  
  
knitr::kable(customers)

|  |  |  |
| --- | --- | --- |
| Company | Location | Category |
| Protected Elsius | Alberta:Calgary | Industry Service & Support |
| Genome Alberta | Alberta:Calgary | Early stage biotechnology |
| Xenon Pharmaceuticals Inc | British Columbia:Burnaby | Early stage biotechnology |
| Takeda Canada Inc | Ontarion:Oakville | Commercial biotechnolgoy |
| BIOTECanada | Ontario:Ottawa | Industry Organization |
| MaRS Discovery District | Ontario:Toronto | Incubator & Accelerator |
| University of Waterloo | Ontario :Waterloo | Research and Academia |
| Merck Canada | Quebec:Kirkland | Commercial biotechnology |
| Pfizer Canada Inc | Quebec:Kirkland | Commercial biotechnology |
| Valeant Canada | Quebec:Montreal | Industry Service & Support |
| BioAuxilium Research | Quebec:St Laurent | Commercial biotechnology |

Forth stage is to proceed massive manufacture stage. A lab or manufacturing site will be used to manufacture these equipements.

Alt-Reference

[1] <https://www.futuremarketinsights.com/reports/turbidimeter-market>. 03/05/2020

[2] <https://www.coleparmer.ca/c/turbidity-meters>. 03/05/2020.

[3] <http://www.biotech.ca/biolist/>. 03/05/2020.

[4] <https://innovation.ised-isde.canada.ca/s/group-groupe?language=en_CA&token=a0B5W000000ArMcUAK.03/05/2020>

[5] <https://www.mentorworks.ca/what-we-offer/government-funding/funding-regions/ontario/> . 03/05/2020