 PopMobile activity

Aim

Investigate life expectancy, population growth and population distribution by age to predict how many people will be 75 years and older in 2020.

Task

You have invented a mobility aid for elderly people called the PopMobile. It is currently being tested and can be released to the market in 2020. You are currently seeking investments into your company and require a loan from the bank to launch the product. As part of your application for the loan, the bank requires sales projections and predicted turnover for the year 2020.

* Investigate the life expectancy, population growth and population distribution data for your local area to forecast the customer base in 2020. Assuming the target customer age is approximately 75 years and older, how many potential customers will there be in 2020?
* Market research has determined that if you sell the PopMobile for $2200 each, you can assume 1% p.a. of your customer base will purchase one. If you sell the PopMobile for $1900 each, 1.5% p.a. of your customer base will purchase one. However, production costs are $800 per unit for up to and including 1000 units, $750 per unit for the production of 1001 to 2000 units, and $700 per unit for over 2000 units. Estimate the annual profit margin for each pricing and use it to decide which price you will choose? Explain your decision.

Websites and sources to use:

* [Life expectancy at birth in Australia](http://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=AU) from the World Bank
* [Population estimates by statistical area](https://itt.abs.gov.au/itt/r.jsp?databyregion#/) from the Australian Bureau of Statistics
* [Population estimates by age and sex in regions of NSW](http://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&32350ds0001_nsw_2010_2015.xls&3235.0&Data%20Cubes&68CC4123E1B99078CA25801200168034&0&2015&18.08.2016&Latest) from the Australian Bureau of Statistics

The PopMobile is a purely fictitious product that has been created for the purposes of this activity. It has no connections with any existing product.