

# Smart Home Limited





## Context

This is the second exercise in the *Introduction* phase of the course. This example organization will be referred to multiple times in further parts of the training, and you will be able to observe how your understanding of the company changes.

## Who are you?

You are the executive board. Your company consists of people who add the 'smart' prefix to various home appliances. You do not own production lines; instead, you outsource assembling to various contractors.

## Products

Image	Description	Price
	<b>Smart mirror:</b> A touch-enabled mirror that can display weather forecast, calendar and news feed. Installation procedure requires mounting the mirror by the wall, opening a configuration webpage, and then linking to your accounts in various services.	\$2,000
	<b>Smart watch:</b> A wearable Android device, with display, heart rate monitor, body fat monitor, temperature monitor and accelerometers. It must be charged every two days.	\$349
	<b>Smart mattress:</b> Dozens of sensors monitor your body temperature, your weight, and how you sleep. It requires a companion smartphone app.	\$499
	<b>Smart toothbrush:</b> Using a number of accelerometers and a bluetooth connection, this device monitors how you brush your teeth. The phone application can display hints and remind you about regularly visiting the dentist.	\$299

## Finances

- You're profitable, with last year's revenue around \$5M, stable net margins around 20% and 37% YtY growth rate.
- You have a healthy cash flow and reserves of \$6M. So far you have been very frugal about marketing and promotion.
- 80% of your income comes from the two cheaper products – smartwatches and smart toothbrushes. The latter was recognized this year by consumers and it looks like it is booming.
- You are concerned about your company's growth. Next year it will be only about 12%.

Your P&L	2013	2014	2015	2016	2017 (forecast)
<b>Current market (\$K)</b>	<b>7,380</b>	<b>12,765</b>	<b>21,392</b>	<b>27,774</b>	<b>35,700</b>
Watch	6,980	10,470	17,450	20,940	23,732
Toothbrush		1,495	2,243	4,485	8,970
Mirror	400	800	1,200	1,600	2,000
Mattress			499	749	998
<b>Your share of the current market</b>					
Watch	50%	50%	50%	50%	50%
Toothbrush		100%	100%	100%	50%
Mirror	100%	100%	100%	100%	100%
Mattress			100%	100%	100%
<b>Total revenue</b>	<b>3,890</b>	<b>7,530</b>	<b>12,667</b>	<b>17,304</b>	<b>19,349</b>
watch	3,490	5,235	8,725	10,470	11,866
toothbrush		1,495	2,243	4,485	4,485
mirror	400	800	1,200	1,600	2,000
mattress			499	749	998
<b>Manufacturing costs</b>	<b>2,334</b>	<b>4,518</b>	<b>7,600</b>	<b>10,382</b>	<b>11,609</b>
Watch	2,094	3,141	5,235	6,282	7,119.6
Toothbrush	0	897	1,346	2,691	2,691
Mirror	240	480	720	960	1,200

Your P&L	2013	2014	2015	2016	2017 (forecast)
Mattress	0	0	299	449	599
<b>Gross profit</b>	<b>1,556</b>	<b>3,012</b>	<b>5,067</b>	<b>6,921</b>	<b>7,740</b>
Watch	1,396	2,094	3,490	4,188	4,746
Toothbrush		598	897	1,794	1,794
Mirror	160	320	480	640	800
Mattress			200	299	399
<b>Gross margin</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>	<b>40%</b>
Watch	40%	40%	40%	40%	40%
Toothbrush		40%	40%	40%	40%
Mirror	40%	40%	40%	40%	40%
Mattress			40%	40%	40%
<b>SG&amp;A</b>	<b>800</b>	<b>1,800</b>	<b>2,800</b>	<b>3,600</b>	<b>3,600</b>
<b>Net profit</b>	<b>756</b>	<b>1,212</b>	<b>2,267</b>	<b>3,321</b>	<b>4,140</b>
<b>Net margin</b>	<b>19%</b>	<b>16%</b>	<b>18%</b>	<b>19%</b>	<b>21%</b>
<b>Growth YtY</b>		<b>94%</b>	<b>68%</b>	<b>37%</b>	<b>12%</b>

## Competition

- A Swiss company, Tizzo, is also experimenting with smartwatches. Originally it made regular watches, but is now trying to embrace high-tech. It started making smartwatches before you, but does not understand the nature of digital products.
- You have seen that a big company (I&I) is recruiting engineers with very specific skill sets. It looks like I&I is going to produce its own toothbrushes very soon, and will have big marketing budgets.

## Operations

You have a small team of designers, a marketing person and a very small customer support team. Designers prepare blueprints, and then you coordinate suppliers and manufacturing process in China. Chinese partners send gadgets directly to resellers.

## Marketing strategy

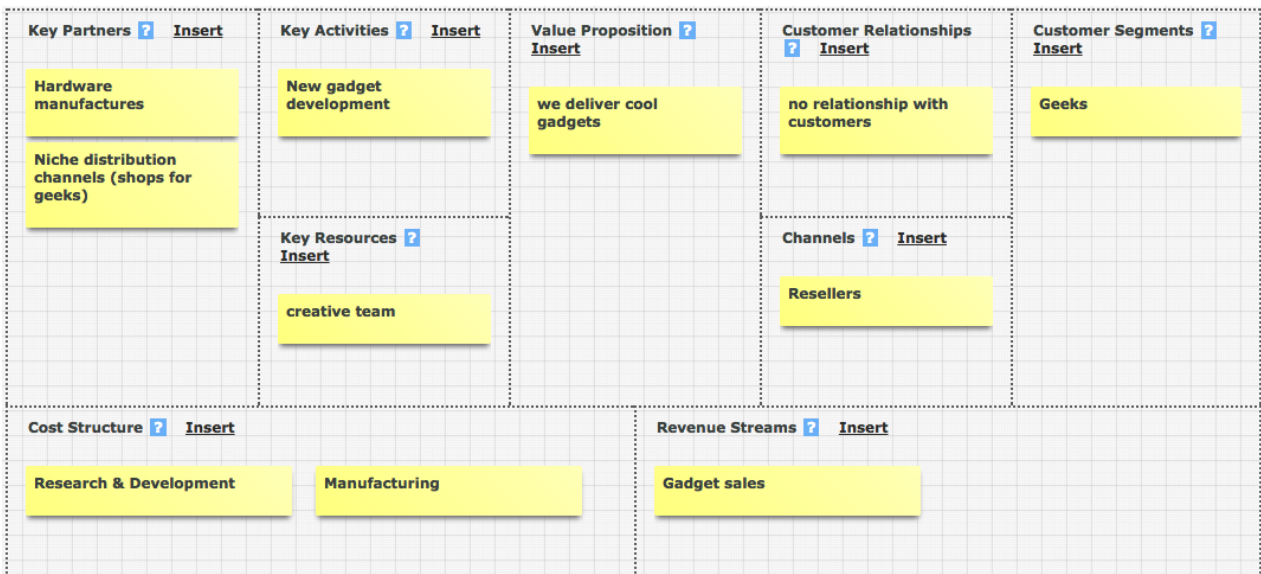
None whatsoever. You have always considered yourself to be a niche company producing niche gadgets for geeks. So far, it has been enough to attend all the high-tech conferences and just stand there – sales just happened. You run some social websites, but you think you could shut them down and it would not affect your business. You also have launched some campaigns from time to time, but they look like a waste of money to you.

You have tried to sell your products to ordinary, non-geeky people, but without much success. They do not see value in them.

## Growth strategy

From the very beginning of your company, your strategy could be summarized as ‘reinvent home appliances’. So far, it has been enough to keep the company running, but this year you are a bit concerned about the competition and slowly stagnating sales of smartwatches. Also, your team seems to be out of ideas for new, ‘smart’ appliances.

### The Business Model Canvas



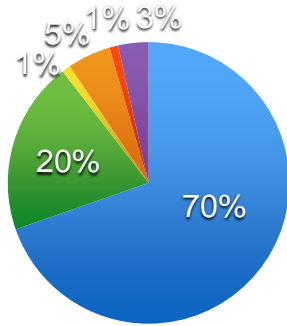
## Your task

Ensure the company has a future. You may consider following options:

1. Make more expensive home appliances (like a smart fridge), which should result in bigger revenue.
2. Make more basic home appliances, such as a smart power socket that allows you to control home appliances. They will be cheap, but you may sell volumes.
3. Milk the company. Either sell it, or fire the design team and continue manufacturing as long as there is demand. Take the profit.
4. Launch a big marketing campaign to attract non-geeky users.
5. Move the design team to a country where labour is cheaper.
6. Try to find a manufacturer that will be able to assemble all your gadgets from the beginning to the end.
7. Any other option you may think of.

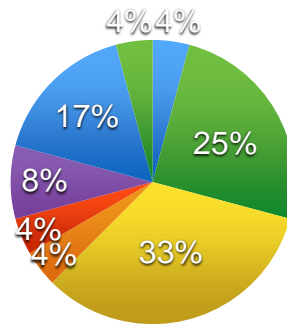
# Appendix I: Manufacturing cost break up

## Smart mirror



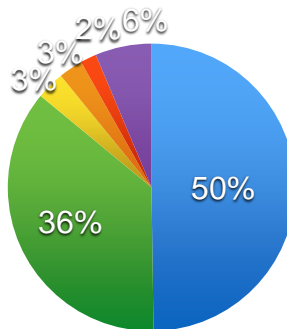
- Large Monitor
- Two way mirror
- Frame
- Transport
- Manufacturing
- Raspberry PI

## Smart watch



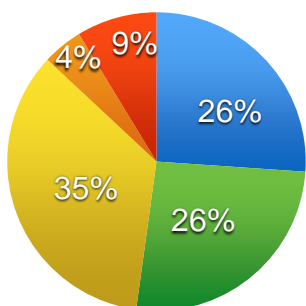
- Screen
- SoC
- Fat Level Monitor
- Accelerometers
- Strap, Bezel & Case
- HR
- Manufacturing
- Transport

## Smart mattress



- Mattress
- Accelerometers
- Raspberry Pi
- Temperature monitoring
- Manufacturing
- Transport

## Smart toothbrush



- Toothbrush
- System on Chip
- Accelerometers
- Manufacturing
- Transport