



Pricing the LED Bulbs

Case studies - Philips

Context: Philips is launching a new premium lightening product - LED bulbs and faces some difficulties in pricing products, targeting customers and selecting the channels

Context: new product launch and LED market analysis

- Philips launched a **high premium** lightening product – LED bulbs (price is **6x** of a compact fluorescent light bulb and **40x** of a standard white incandescent bulbs)
- LED bulb is a very new/innovative product in the lightening market which only takes up **<1%** market share compared with **61%** of Incandescent light bulbs

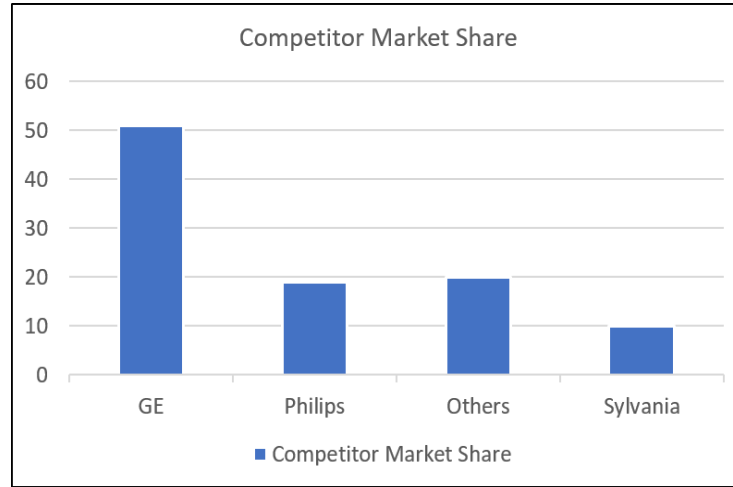
Problems: how much to sell, who should target and where to sell

- How much should Philips price?
- How do Philips increase consumer awareness on this high premium LED product? (ex: focus on environmentally friendly or cost saving)
- Whom to target? (Individual customers or business customers)
- What channel to sell the products? (Retailer vs Distributions)

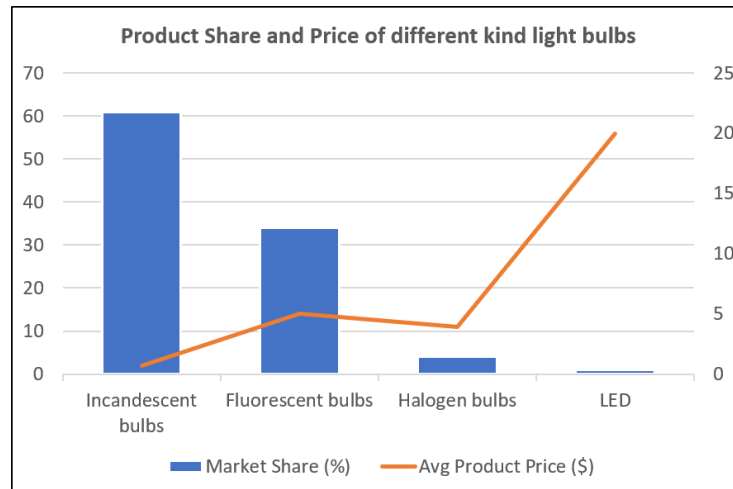
Summary: Philips can price LED bulbs at \$22 and launch powerful ads and educate programs to boost the market demand to benefit from the potential LED bulbs market

- **Market analysis**
 - 3 main market players in lightening industries in north American
 - LED bulbs only have <1% market share
- **Product positioning**
 - LED bulbs have 2 main advantages – cost saving and environmentally friendly
 - LED bulbs have 2 main drawbacks – high product cost and retail price which discourages customer on purchasing
- **Pricing strategy**
 - Setting price above marginal cost \$9 to at least breakeven the business
 - Possibly to sell the product at the highest market cap \$23 since LED bulbs product can save ~\$150 for customers
 - Re-negotiate the retail margin with our business partners
- **Recommendations**
 - Launching powerful advertisements and educate programs
 - Develop low cost products with lower product specifications

Market Analysis: 3 main players in lightening market and incandescent and fluorescent bulbs consist of 95% of the market



- **3 main players** in lightening market – GE, Philips and Sylvania
 - GE is the market leader with 51% of market shares followed by Philips with 19% of market share
- **3 main channels** to sell the light bulbs – supermarket, discounters, wholesale clubs



- Incandescent and fluorescent bulbs make up **95%** of the lightening market
- Price of a LED bulb is **~33x** higher of a incandescent bulb, **~4x** higher of a fluorescent bulb and **~5x** higher of a halogen bulb
- Product market share and price seems to have a **negative** relationship, says the higher the product price, the less market share

Product Positioning: LED bulbs has 2 main selling points but with 2 major issues that need to be discussed when pricing the products

Customer perspectives: cost advantage, eco-friendly

- Cost advantage of using LED bulbs
 - Individual and business customers can save at least ***\$150 and \$128** electricity bills respectively even though a LED bulb charge **40x** of a standard white incandescent bulb
 - LED bulbs is more energy efficient (saving **8x** energy) and has longer life expectancy (**24x** longer)
- Customer utility
 - Customer utility increase from -9.2 to 6.1 if the energy usage of the bulb reduces from 25 watt to 10 watt
 - Eco-friendly attitude: using this product can save our planet

Philips perspectives: having first mover advantage but with some points need to be considered

- LED bulbs comparative advantages
 - First mover advantage: launch the first LED bulbs among 3 main market players
 - Energy saving and longer life expectancy -> reduce electricity cost & is eco-friendly
- LED bulbs disadvantages
 - High product cost (\$4) -> **45x** of a standard incandescent bulb
 - High retail price (~\$20) -> **40x** of normal bulb
 - Customer takes more time to make purchasing decisions -> low turnover rate for our business partners
 - High retail margin ~55% of retail price needs to be paid to compensate for our low product turnover rate

* Assume using 18000 hours with electricity fee \$12.7 cents/kwh

- Bills of using soft white incandescent bulbs: $75 \text{ watt} * 18000 * 12.7 / 100000 = 171.45$ (bulbs fee: $18000 * 0.6 / 750 = 14.4$)

- Bills of using LED bulbs: $9 \text{ watt} * 18000 * 12.7 / 100000 = 20.57$ (bulb fee ~20)

Pricing Strategy and Recommendations: Philips can price their products between \$9 and \$23 and take some measures to create more market demand for LED bulbs

Pricing setting: retail price range from \$9 to \$160 and possibly reduce retail margin

- Breakeven price: *\$9
- Retail price setting
 - since customers can save at least \$150 electricity bills, we can price our products somewhere **between \$9 and \$160**
- Retail margin setting
 - currently the retail margin is 55% because of higher product cost and low product turnover rate -> should enhance our marketing strategies and educate our customers about the benefit of changing their conventional bulbs to LED bulbs -> increase market demand and re-negotiate the retail margin

Recommendations: launching ads and educate programs and develop cheaper products with lower product specifications

- Philips has **first mover advantages** in terms of launching LED bulbs – possibly can increase the product price above marginal cost \$9 to \$22 or \$23 (since the highest LED bulb price in that market is around \$23)
- Launching powerful advertisements and educate programs
 - promote the benefits of using LED bulbs to boost market demand -> big potential since currently LED bulbs only have <1% market share
- Develop low cost products with lower product specifications
 - acquire more market and increase product turnover rate

*Assume retail margin is 55%, product cost is 4 and retail price is x
 $-0.45x \geq 4 \rightarrow x \geq 8.88$