

LIFE CYCLE COSTING

1. Bogus Electricals Ltd. (BEL) launches a deluxe type walkman in the market. The market research study reveals that a demand of 20000 units/month of such Walkman thus launched, exist. The variable cost/units of it is ₹640/- and the total fixed overhead is ₹ 20,00,000/- per month. The selling price is 125% of the variable cost. The company adopts a policy of penetrating pricing. The demand of the walkman per month is given by the equation $Q_1 = 2000 t_1 - 50 t_1^2$, where Q is the demand in unit and t is the time in months from its introduction in the market. When 50% of the market has been penetrated, the company changes its pricing policy to 150% of the variable cost for the subsequent months till it captures the whole market. The profit earned during maturity stage is ₹ 12.0 crores.

A competitor, Worthless Electricals Ltd. (WEL) then enters the market with a peoples' band Walkman having a demand function of $Q_2 = 2500 t_2 - 30 t_2^2$. When people is introduced, the demand in the market rises to 21500 units/month. Deluxe's price is reduced to ₹ 880 to combat the price of people at ₹ 880 each. When people is introduced, the demand of deluxe declines, the total market demand remaining the same. When the sale of deluxe drops around 1,500 units/month, BEL discards the product. Determine the Product Life cycle of deluxe.