

Wellyntoy Products

Prescriptive Analytics

2024

Wellyntoy case

Summary

Business context

- Dynatron is originally a comic strip and then became a cartoon series
- Wellyntoy decided to produce a character toy based on Dynatron
- Injection moulded toy with moving parts that can become a racing car with few manipulations
- Two Dynatron types: standard and super Different in size and finish
- Wellyntoy plans for 2010 learning from 2009

Numbers from 2009:

- Tooling capacity: 150,000 units (£50,000)
- Order quantity: 33,000 standard and 19,000 super
- Sales: 35,000 units (60% standard and 40% super)
- Inventory leftover: 12,000 standard and 5,000 super (due to production delays)

Situation for 2010:

- Demand: 150,000 units (min=50,000 units, max=300,000 units)
- Proportion of supers: 40% (min=30%, max=60%)
- Price for 2010: £4.30 standards, and £5.50 supers
- Cost estimates for 2010
- Capacity costs: Tooling capacity from 2009 (150,000) is in good shape £15,000 to increase tooling capacity anywhere between 150,000 and 200,000 £55,000+£15,000 to have capacity over 200,000
- Direct costs: £2.50 for standard and £3.20 for super.

Last year information		2009	
	Tooling capacity	150,000	
	Order standard	33,000	
	Order super	19,000	
	Sales	35,000	
	Sales standard	21,000	60%
	Sales super	14,000	40%

Production alternatives			
	Standard	Super	Total
Field sales representative	130,000	95,000	225,000
Production manager	80,000	70,000	150,000
Product manager	115,000	85,000	200,000

Additional costs	
Royalties	9%
Advertising	3%
Stock carrying costs	2%

	min units	max units
Capacity costs	0	0
	15,000	150,000
	70,000	200,000

Scenario	Total demand	% of super
Base	150,000	40%
Best	300,000	60%
Worst	50,000	30%

Figure 1: Model in Open Solver

Last year information		2009	
	Tooling capacity	150,000	
	Order standard	33,000	
	Order super	19,000	
	Sales	35,000	
	Sales standard	21,000	60%
	Sales super	14,000	40%

Production alternatives			
	Standard	Super	Total
Field sales representative	130,000	95,000	225,000
Production manager	80,000	70,000	150,000
Product manager	115,000	85,000	200,000

Additional costs	
Royalties	9%
Advertising	3%
Stock carrying costs	2%

	min units	max units
Capacity costs	0	0
	15,000	150,000
	70,000	200,000

Scenario	Total demand	% of super
Base	150,000	40%
Best	300,000	60%
Worst	50,000	30%

Figure 2: Model in Open Solver

- Selling, royalties, discounts: 9% of gross margin
- Advertising and promotion: 3% of gross margin
- Holding cost: 2% per month based on direct costs Any excess stock is carried for an average of 6 months