

Lessons to be Learned – From an Old Simple Product

The Old Mousetrap vs. The Better Mousetrap

- If you build a better mousetrap in your home in the woods, the world will beat a path to your door.....



The Victor Mousetrap by Woodstream Corp.

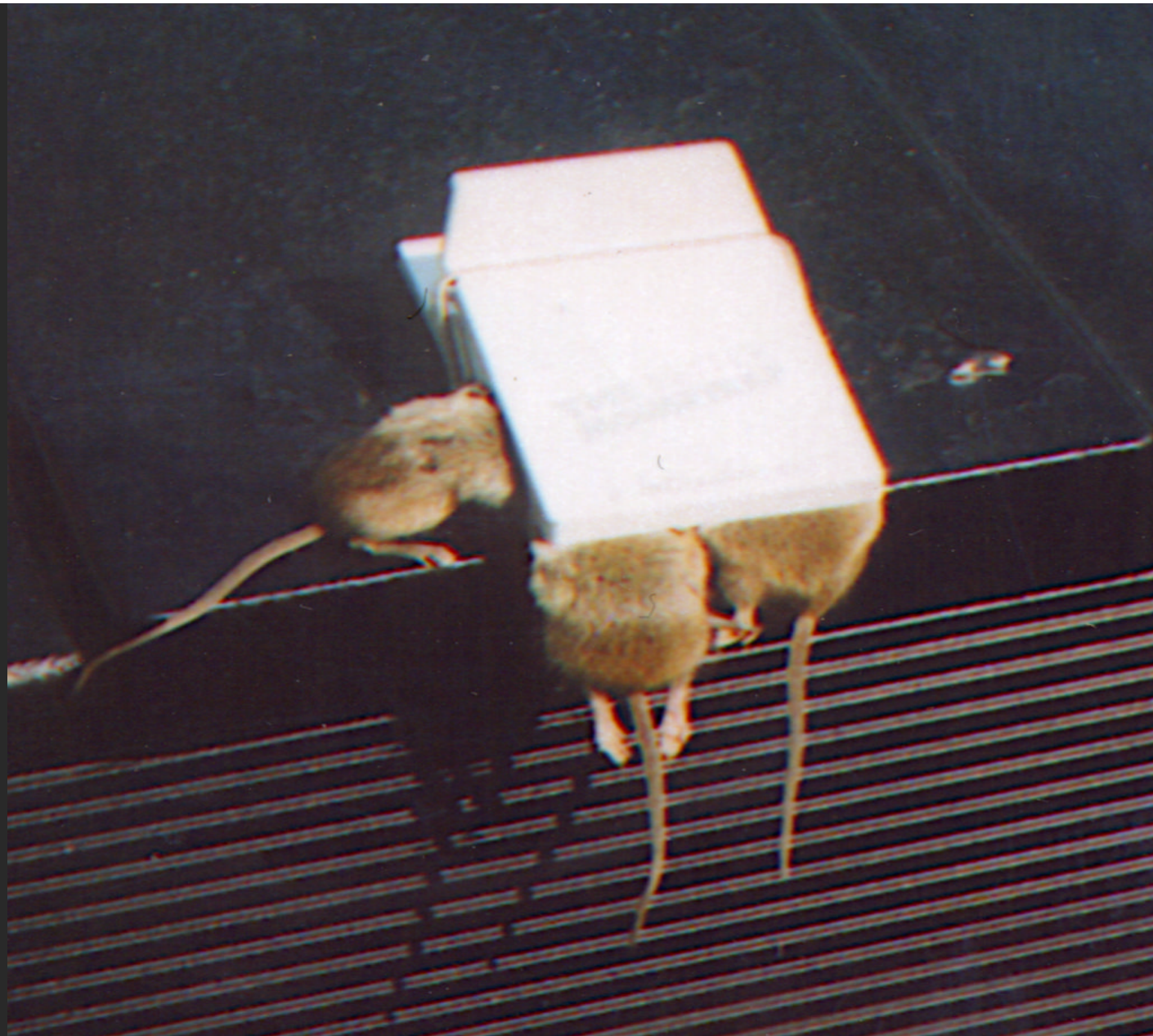
- The Victor Mousetrap Has Existed for Over 100 Years and is Truly the “**ICON**” of Mousetraps; Everyone Expects That Mousetraps Should Look Like the Victor.
- The Victor Mousetrap is Fully Tooled and Automated. Woodstream is Capable of Producing Millions of Units per year at a Very Low Cost.



The Better Mousetrap

- Cost less to make, but Price is Twice the Victor
- Is Very Simple – Only 4 Parts
- Tooling Costs are Low and Manufacturing Process is Very Simple

But, Does It Work ?



They ain't sleeping ...

Managing Costs: Complexity Factor (Cf)

Part	Element Name	No. of Parts (Np)	No. of Types of Parts (Nt)	No. of Interfaces of Each Element (Ni)
A				
B				
C				
D				
E				
G				
H				
TOTALS		ΣNp	ΣNt	ΣNi

$$C_F = \sqrt[3]{\Sigma Np \times \Sigma Nt \times \Sigma Ni}$$

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Victor - Trap

<u>Part</u>	<u>Description</u>	<u>NP Quantity</u>	<u>NT Type</u>	<u>NI Interfaces</u>
1	Wood Base	1	1	6
2	Bait Holder/Latch	1	1	2
3	Spring	1	1	2
4	Trapping Armature	1	1	4
5	Latch Arm	1	1	2
6	Staple for Bait Holding	1	1	2
7	Assembly Staple	3	1	6
8	Shipping Staple	1	1	2
9	Printing Ink	<u>2</u>	<u>2</u>	1
Totals		<u>12</u>	<u>10</u>	<u>27</u>

Complexity Factor: $C = \sqrt[3]{EN_p \times EN_T \times EN_I} = \sqrt[3]{12 \times 10 \times 27}$
 $= 14.79$

The Intruder Trap

<u>Part</u>	<u>Description</u>	<u>NP Quantity</u>	<u>NT Type</u>	<u>NI Interfaces</u>
1	Base	1	1	3
2	Clamp	1	1	4
3	Bait Shelf/Lever	1	1	2
4	Spring	1	1	2
5	Ink	1	1	1
	Totals	<u>5</u>	<u>5</u>	<u>12</u>

Complexity Factor: $C = \sqrt[3]{EN_p \times EN_T \times EN_I}$

$$= \sqrt[3]{5 \times 5 \times 12}$$

$$= \sqrt[3]{300}$$

$$= \underline{\underline{6.69}}$$

Managing Market Needs

“The Better Mousetrap”

- Often your Customers and End Users are unaware of the “ Unfulfilled Perceived, Unperceived, and Latent Needs” –
- They unwittingly and unconsciously accept the products as they are with all their deficiencies for years on end
- Show them a product that makes makes something possible not possible before, and addresses a real frustration -- they'll buy it in droves.

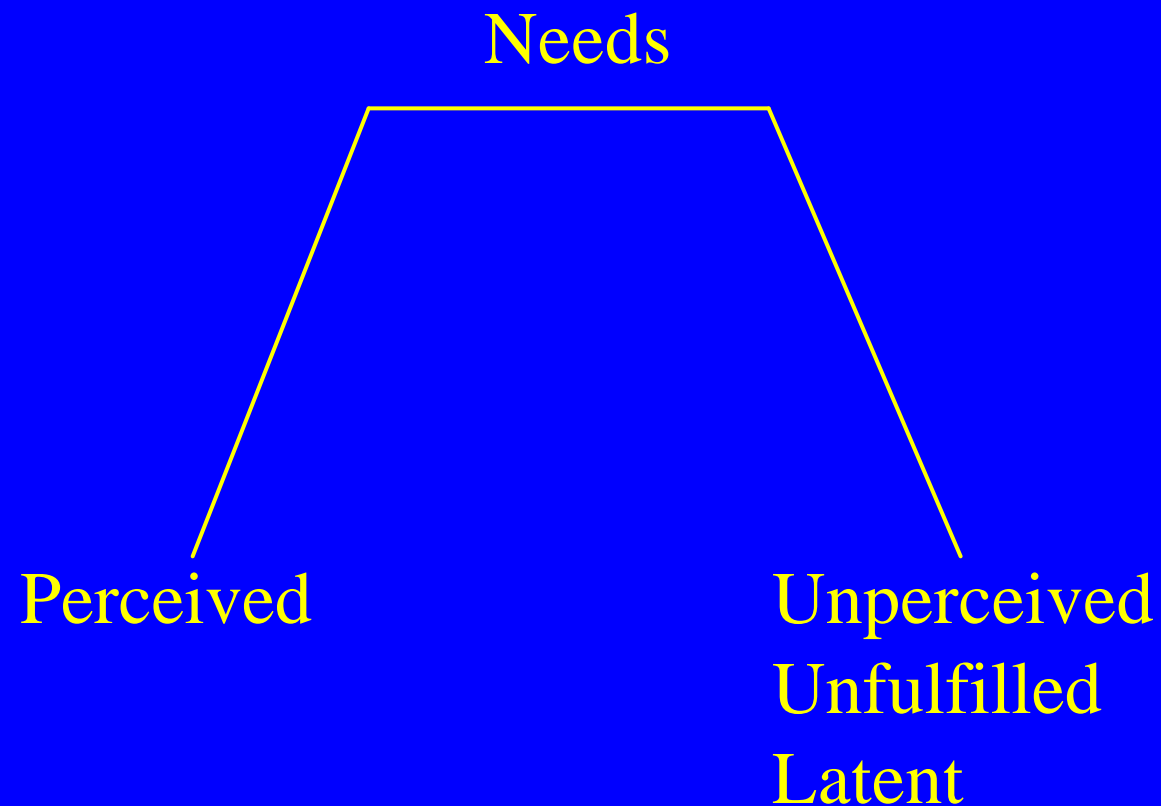
First, Segment Your Markets

Include New, Emerging As Well as Existing Users

Understand Well How Competitors Are Winning Battles

		Current Markets			New Markets	
		Segment A	Segment B	Segment C	Segment D	Segment E
BEST	Units (in Millions)					
	Annual Growth Rate					
	Units					
	Market Leaders					
BETTER	Units (in Millions)					
	Annual Growth Rate					
	Units					
	Market Leaders					
GOOD	Units (in Millions)					
	Annual Growth Rate					
	Units					
	Market Leaders					

Then, Mine User Needs and Frustrations



Needs

Victor

Better Trap

Perceived

- Low Cost
- Reliable
- Sanitary
- Humane
- Easy to Manufacture
- Low Capital Cost

\$.75
180 motion
Not really
Quick
Complex
Capital intensive

\$1.50
90 motion
Dishwasher safe!
A little snap
4 parts
Plastic mold

Latent

- Easy to Bait & Set
- Safe
- Disposable
- Reusable
- Easy to Dispose Mouse
- Bait Reusable

Hard
No!
Sure
Not a chance
No!
No

Very easy
Try it.
Yes when necessary
Highly reusable
Very simple
Yes

Then, Stage Out Into A Family Rollout Plan

	Jan-01	Jul-01	Jan-02	Jul-02	Jan-03
Products					
Product line 1					
Feature set 1	Good	Better	Best		
Feature set 2	Good	Better	Best		
Feature set 3		Good	Better	Best	
General planned releases			P2-based	P3-based	P4-based
Product line 2					
Feature set 1	Good	Better	Best		
Feature set 2		Good	Better	Best	
General planned releases			P2-based	P3-based	P4-based
Product line 3					
Feature set 1		Good	Better	Best	
Feature set 2			Good	Better	Best
General planned releases			P2-based	P3-based	P4-based
Platform					
P1 - Today's Platform	P1				
P2 - Next Gen			P2		

Doing everything at once in the “grand platform” rarely works.

Lessons Learned from “The Better Mousetrap”

- To uncover opportunities to satisfy “Unfulfilled Perceived, Unperceived, and Latent Needs” you must be insulting and ruthlessly critical of your products
- Many times the existing design architecture is incapable of fulfilling the “Unfulfilled Perceived, Perceived, and Latent Needs” of your products, processes, and services

The Better Mousetrap

- Does Not Look Like a Mousetrap
- Does Not Convey the Ability to Catch Mice
- It is not an ICON, Yet!
- ICON development is costly – time consuming – it takes a long time